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INITIAL STUDY  
FOR THE  
SAN FRANCISCO  
GENERAL HOSPITAL  
MEDICAL HELIPAD

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CASE # 2003.1200E

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# PLANNING DEPARTMENT

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October 29, 2005

To Responsible Agencies, Trustee Agencies, and Interested Parties:

**RE: NOTICE OF AVAILABILITY OF THE INITIAL STUDY FOR THE SAN FRANCISCO GENERAL HOSPITAL (SFGH) MEDICAL HELIPAD, CASE NO. 2003.1200E**

This notice is to inform you of the availability of the environmental review document concerning the proposed project, described below. The Planning Department previously determined that the San Francisco Medical Helipad project could have a significant effect on the environment, and required that an Environmental Impact Report (EIR) be prepared. An Initial Study has now been prepared to provide more detailed information regarding the impacts of the proposed project and to identify the environmental issues to be considered in the Draft EIR. Preparation of an Initial Study or an Environmental Impact Report does not indicate a decision by the City either to carry out or not carry out the project.

**PROJECT DESCRIPTION. 2003.1200E: SAN FRANCISCO GENERAL HOSPITAL MEDICAL HELIPAD:**

The San Francisco Department of Public Health proposes to construct and operate a medical helipad on the roof of the southwest corner of the Main Hospital building at the San Francisco General Hospital (SFGH) Campus, located at 1001 Potrero Avenue. The site includes a portion of Assessor's Block 4154, Lot 001. The medical helipad would consist of a 54-foot by 54-foot (about 3,000-square-foot) helipad platform, which would rise five feet above the existing roof level (about 1-½ feet above the existing parapet). The project would also include modifications to the existing east elevator penthouse to accommodate rooftop elevator access (part of the elevator penthouse would be increased in height by six feet); construction of a 940-square-foot, 12-½-foot-tall vestibule off the entrance to the east bank of elevators; and an 8- to 16-foot-wide access ramp between the helipad platform and the proposed vestibule. Elevator equipment and control systems would be upgraded. During the first year of project operation, SFGH is expected to receive about 53 trauma patients by helicopter. As the program becomes established, transfer patients are expected to be transported by medical helicopter, to SFGH. At full maturity, SFGH could receive up to about 700 annual landings, a maximum of 3 arrivals per day. The project is within a Public (P) Use District and a 105-E Height and Bulk District, in the greater Mission neighborhood of San Francisco.

Notice is hereby given to the general public as follows:

- 1) A Notice of Preparation of an EIR and Public Scoping Meeting was published on August 10, 2004, by the Planning Department in connection with this project. Such notice was also advertised on August 10, 2004, in the *San Francisco Independent* newspaper. A scoping meeting was held August 24, 2004.
- 2) An Initial Study in connection with this project has been prepared by the Planning Department. A copy of the report is either attached or can be obtained for public review and comment by calling Carol Roos at 558-5981. The report may also be viewed on-line starting October 31, 2005, at [www.dph.sf.ca.us/helipad](http://www.dph.sf.ca.us/helipad). Copies will also be available at the San Francisco Main Library, the Bayview and Mission branch libraries, and the SF General Hospital Library (at Building 30). Referenced materials are available for review by appointment at the Planning Department's office at 30 Van Ness Avenue, 4<sup>th</sup> Floor. (Call 558-5990 to schedule an appointment.)
- 3) Written comments on the Initial Study and the scope of the EIR will be accepted from October 29, 2005 to 5:00 p.m. on November 30, 2005.

If you work for an agency that is a Responsible or a Trustee Agency, we need to know the views of your agency as to the scope and content of the environmental information that is relevant to your agency's statutory responsibilities in connection with the proposed project. We will also need the name of the contact person for your agency.



# SAN FRANCISCO GENERAL HOSPITAL MEDICAL HELIPAD INITIAL STUDY

Planning Department Case No. 2003.1200E

## I. PROJECT DESCRIPTION

### Introduction

San Francisco General Hospital (SFGH) is a licensed general acute care hospital, which is owned and operated by the City and County of San Francisco, Department of Public Health (DPH). San Francisco General Hospital provides medical care in collaboration with the University of California San Francisco (UCSF) School of Medicine. The hospital provides a full complement of inpatient, outpatient, emergency, skilled nursing, diagnostic, psychiatric/mental health, and rehabilitation services for adults and children. It is the largest acute inpatient and rehabilitation hospital for psychiatric patients in the City. Additionally, it is the only acute care hospital in San Francisco that has a trauma program and operates a Level I Trauma Center<sup>1</sup> for the 1.1 million residents of San Francisco and northern San Mateo County.<sup>2</sup>

Currently, there is no hospital in San Francisco that operates a medical helipad or that has direct air access to its campus. The single facility approved by the Federal Aviation Administration (FAA) and the City and County of San Francisco Emergency Medical Services Agency that was provided for San Francisco public safety agencies and emergency medical services (EMS) helicopters was located at the Hunters Point Naval Shipyard. This helipad closed in July 2004. It was not used by helicopters transporting severely injured patients, however, because a secondary transfer to a ground ambulance and the subsequent trip to the trauma center would add transport time and risk, potentially compromising the patient's ability to survive the injury. Trauma patients are now flown by EMS helicopters to facilities outside San Francisco, primarily to trauma centers in the counties of Contra Costa, Alameda, Sonoma, and Santa Clara.

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<sup>1</sup> A designated Level I Trauma Center is a specialized hospital facility that has an adequate depth of personnel, resources, services, equipment, and supplies to provide care for the injured patient throughout all phases of trauma, which include the Emergency Department, Operating Room, Intensive Care Unit, and Medical Surgical Unit, to discharge. This level of comprehensive care is immediately available 24 hours/day, 7 days/week. Level I centers are required to have an approved surgical residency program; therefore, most centers are university-based teaching facilities. In addition to providing optimal trauma care, Level I centers also have a major responsibility for providing regional leadership to community facilities in education, research, and injury prevention. (American College of Surgeons, *Resources for Optimal Care of the Injured Patient*, 1999.)

<sup>2</sup> The SFGH Trauma System service area extends beyond the southern boundary of the City and County of San Francisco to include the northern portion of San Mateo County south to Trousdale Boulevard in the City of Burlingame. The San Francisco Health Commission approved this regionalization of trauma services in 1998. (Resolution #04-98, January 20, 1998.)



In August 2001, the San Francisco Health Commission approved the *City and County of San Francisco Trauma Care System Plan* and requested that SFGH conduct a needs assessment and feasibility study for a medical helipad at the Main Hospital campus (Resolution #14-01, August 7, 2001). The feasibility study<sup>3</sup> was completed in March 2003 and presented to the San Francisco Health Commission. It revealed trauma care system vulnerabilities in San Francisco's ability to decrease death and disability due to injury. According to the feasibility study, the trauma system vulnerabilities – geographic isolation, seismic instability, traffic congestion, population density, having only a single trauma center, and having no dedicated pediatric trauma center – cannot be addressed without consideration of air transport to the Trauma Center at SFGH. The Health Commission accepted the study and directed SFGH to complete the next phase of planning for air medical access to SFGH, including development of a medical helipad design and conducting an environmental impact analysis.

## **Proposed Project**

### Project Location

The San Francisco Department of Public Health proposes to construct and operate a medical helipad on the rooftop of the Main Hospital building at the SFGH Campus, located at 1001 Potrero Avenue. The project site is within Lot 001 in Assessor's Block 4154. The Hospital Campus is located between the Mission District and Potrero Hill neighborhoods and covers approximately 23 acres (see Figure 1: Project Location). The main campus area is bounded on the west by Potrero Avenue, on the north by U.S. Highway 101 and 20<sup>th</sup> Street, on the east by U.S. Highway 101, and on the south by 24<sup>th</sup> Street. A six-level City-owned parking garage is located south of the campus between 23<sup>rd</sup> and 24<sup>th</sup> Streets and is also associated with the SFGH Campus. Surrounding land uses are residential and mixed residential/commercial. The project site is in a P (Public) Use district, and a 105-E Height and Bulk district; the latter permits buildings up to 105 feet in height, with a maximum building length and diagonal dimension of 110 feet and 145 feet, respectively, above 65 feet in height.

### Existing Conditions

The SFGH Main Hospital building, located in the southeastern portion of the campus, is a seven-story, H-shaped building with a basement (see Figure 2: SFGH Campus Site Plan). The building encompasses 617,400 gross square feet (gsf). The proposed location for the medical helipad would be on the rooftop of Wing C, on the southwest corner of the Main Hospital



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<sup>3</sup> Gerson/Overstreet Architects, *San Francisco General Hospital Medical Center Air Medical Access Needs and Feasibility Study*, September 2002-March 2003, March 4, 2003.

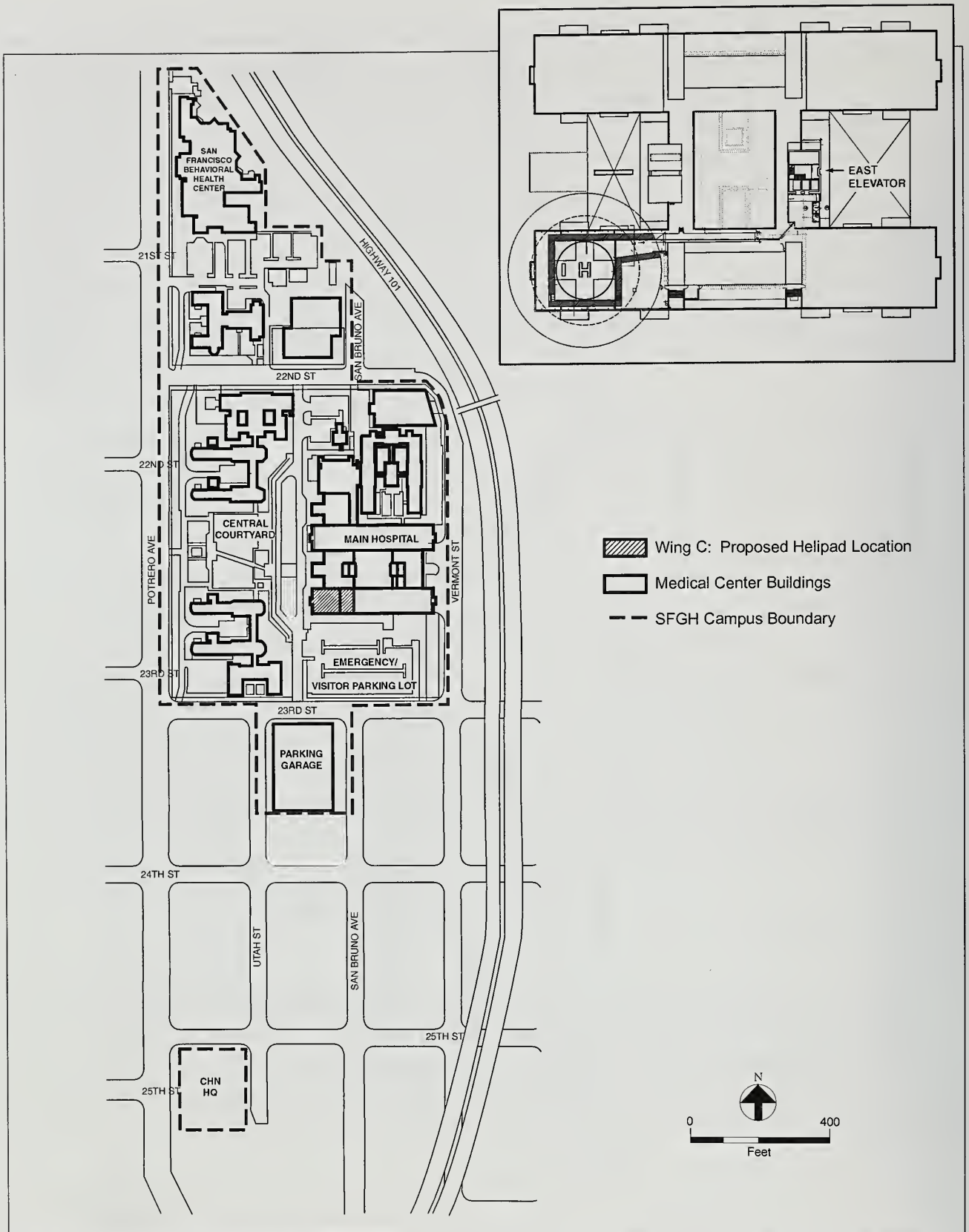




SOURCE: Turnstone Consulting

 Project Site  
 SFGH Campus Boundary





SOURCE: Turnstone Consulting, Gerson/Overstreet Architects

SFGH MEDICAL HELIPAD

2003.1200E

FIGURE 2: SFGH CAMPUS SITE PLAN

building (see Figure 3: Proposed Helipad Site Plan). This roof area is 105 feet above the grade elevation with an additional 42-inch-high concrete parapet wall.

### Project Design

The medical helipad would consist of a 54-foot by 54-foot (approximately 3,000-square-foot) helipad platform, either constructed of steel and concrete, or installed as a prefabricated aluminum framing system with a helipad surface, which would rise approximately five feet above the existing roof level, and would extend approximately 1½ feet above the existing parapet wall. This existing parapet wall would remain in place. Modifications to the east elevator penthouse to accommodate rooftop elevator access are also planned; this existing elevator bank currently serves the Emergency Department on the ground floor, the Trauma Center ICU on the fourth floor, and the suite of Operating Rooms on the third floor of the Main Hospital building (see Figure 4: Schematic Axonometric of Proposed Helipad – View from Northwest). A portion of the elevator penthouse would be raised approximately six feet to accommodate elevator access to the roof-top level. A proposed 940-square-foot, 12½-foot-tall vestibule would be constructed on the roof, off the entrance to the new elevator doors and elevator equipment and control systems would be upgraded. The vestibule would provide shelter for patients and emergency medical technicians (EMTs) during transport into the elevator. An 8- to 16-foot-wide access ramp would be constructed between the helipad platform and the east bank of elevators. A second access point would be constructed off of the southeast steps of the helipad leading to an existing stairwell east of the helipad platform. A new, 12-foot-deep roof overhang would be constructed attached to the south-facing wall of the existing mechanical plant room adjacent to the helipad in order to arrest downward draft from helicopter rotor wash.

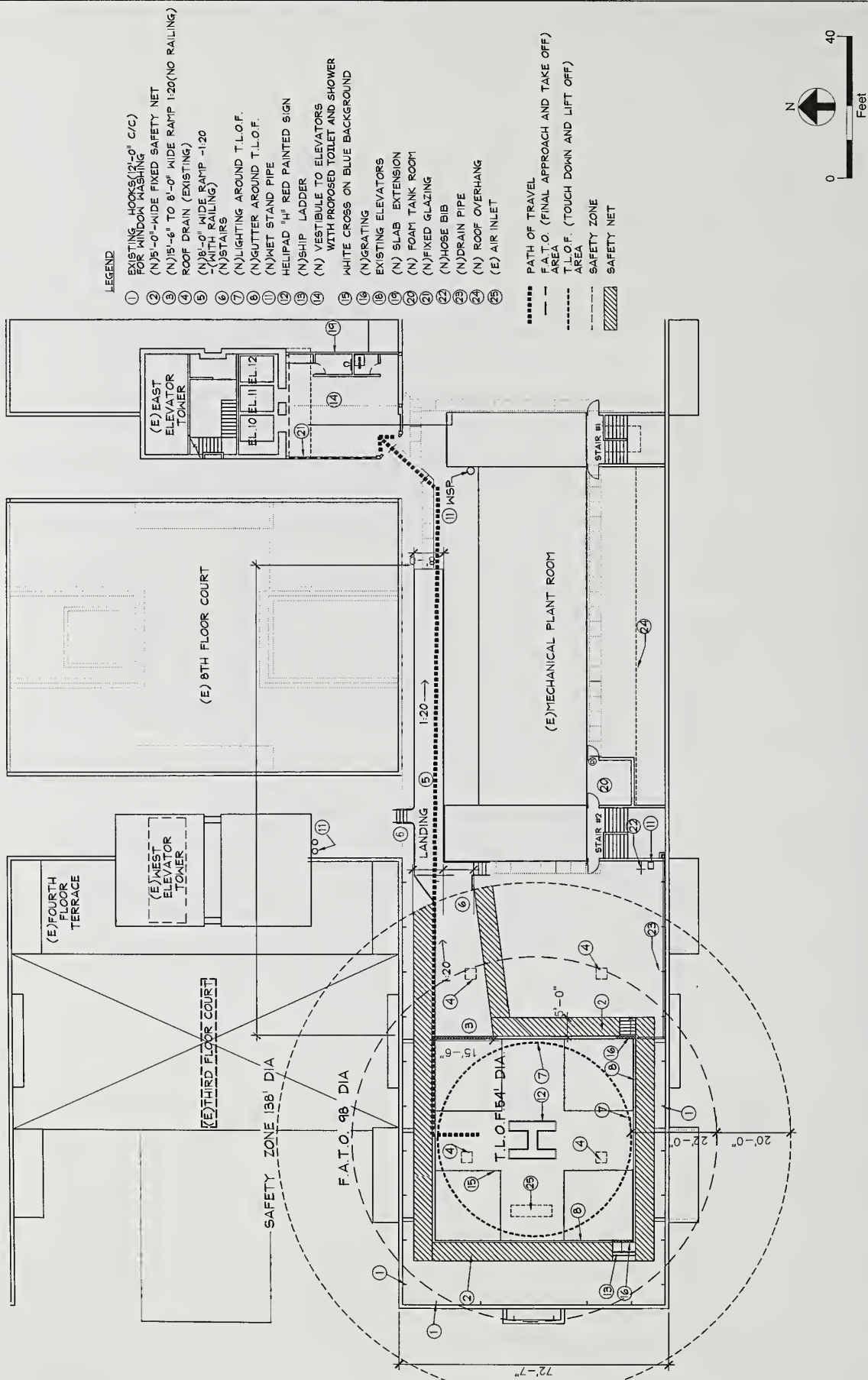
Several additional rooftop design elements would be part of the project, including lighting to conduct night operations; a lighted wind cone; foam fire suppression equipment along with new room for foam equipment, including a wet standpipe<sup>4</sup>; a 900- to 1,000-gallon spill containment system<sup>5</sup>; and a metal mesh safety net extending five feet around the helipad platform within the existing roof parapet. Additionally, several of the existing Wing C rooftop antennae, satellite dishes, and air-conditioning/ventilation ducts would be relocated to other nearby rooftop locations on the hospital building.

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<sup>4</sup> A wet standpipe runs the height of the building and provides water outlets at each floor to which fire-fighting hoses can be connected.

<sup>5</sup> A spill containment system would be constructed below ground adjacent to the south wall of the Main Hospital building. Unanticipated aviation fuel spills from the helicopter, along with stormwater runoff, would be piped from the helipad surface into a below-ground tank to be located at the base of Wing C of the hospital. Water and contaminants, which may contain foam fire retardant, in addition to fuel and oil, and helipad cleaning materials, would be separated within the tank. Separated stormwater would be directed into the City's storm drain system, while contaminants would remain in the tank, to be pumped out and disposed of in accordance with hazardous material disposal requirements.



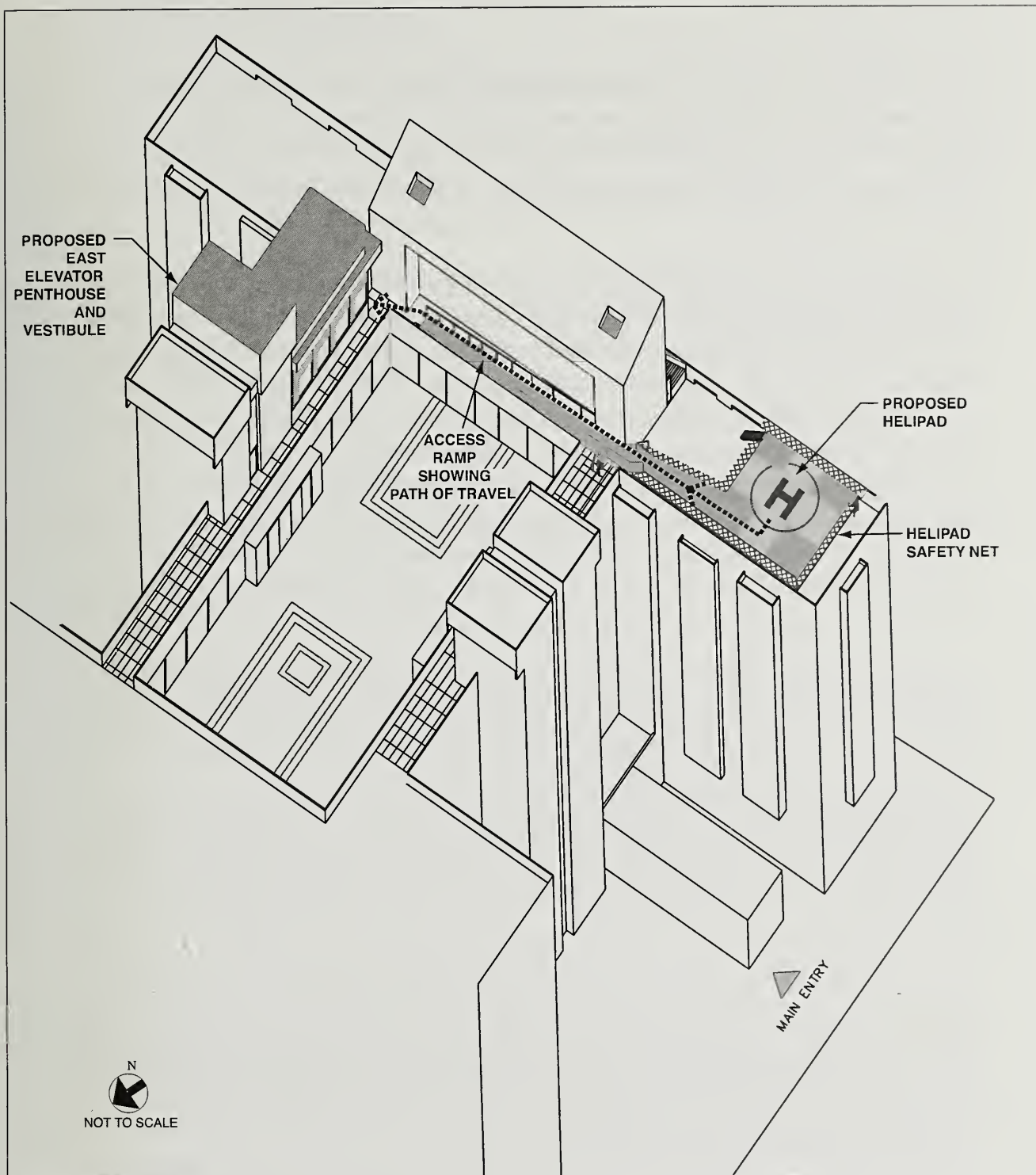


SOURCE: Turnstone Consulting

STGH MEDICAL HELIPAD

2003.1200E





SOURCE: Gerson/Overstreet

SPGH MEDICAL HELIPAD

2003.1200E

FIGURE 4: SCHEMATIC AXONOMETRIC OF PROPOSED HELIPAD-VIEW FROM NORTHWEST

## Project Operation

The *Air Medical Access Needs and Feasibility Study* projected the number of emergency medical services helicopter landings that could be expected on an annual basis if a medical helipad were to be constructed at SFGH. Typically, the start-up volume of flights is proportionately smaller during the first year of developing an air medical access program. SFGH could expect to receive approximately one patient by helicopter per week from the scene of an emergency incident, or about 53 patients annually.

The Level I trauma services and the tertiary<sup>6</sup> care medical services at SFGH are also expected to accept helicopter transfer patients from community hospitals and lower level trauma centers within the west and north Bay Area. As the air medical access program at SFGH becomes more established over the subsequent two-year period, it is estimated that approximately 400 inter-facility transfer patients, or an average of a little more than one patient per day, could be received at the hospital annually. Approximately 240 additional patient transports may be received for tertiary referrals to other San Francisco hospitals as a result of the decommissioning of the Bayview Hunters Point Public Safety Helipad in July 2004. Patients in this category may include burn patients requiring transport to the America College of Surgeons Verified Burn Center at Saint Francis Memorial Hospital; patients requiring extremity re-implantation at Davies Medical Center; and women, children, and infants requiring UCSF Medical Center tertiary care services.

Consequently, as the program reaches full maturity, four to five years from inception, SFGH anticipates that the hospital may experience as many as approximately 700 ( $53+400+240=693$ ) landing and takeoff cycles per year<sup>7</sup>, with an expected maximum of three landings per day on the rarely occurring peak air-transport day. It is not likely that the SFGH Air Medical Access program would reach the level of three air transports per day at SFGH.<sup>8</sup> However, in order to provide a conservative analysis, the EIR will analyze a maximum peak air-transport day of three air transports per day. If the other hospitals were not to use the SFGH medical helipad, the

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<sup>6</sup> Tertiary care provides a full range of services across a continuum of care, including some of the most highly specialized services. Tertiary care medical centers are generally affiliated with schools of medicine, participate in undergraduate and graduate medical education, and serve as regional referral centers. Tertiary care hospitals provide the highest or the most complex level of care which is not generally available in a community hospital for the treatment of a particular medical condition. (U.S. Government Accounting Office, B. Chang, MD – [www.va.gov](http://www.va.gov); Johns Hopkins University School of Medicine – [www.hopkinsmedicine.org](http://www.hopkinsmedicine.org), accessed April 12, 2005.)

<sup>7</sup> A helicopter flight cycle includes one landing and one takeoff.

<sup>8</sup> John Muir Medical Center, in Walnut Creek, Contra Costa County, operates a Level II Trauma Center and has had a medical helipad for 18 years. The majority of air transport patients are from the field (75 percent) but the Medical Center also receives inter-facility transfers from other hospitals in the region. The hospital does not have a hospital-based helicopter program. Staff at John Muir Medical Center report receiving 700 flights per year, an average of fewer than two flights per day. (Gerson/Overstreet Architects, *San Francisco General Hospital Medical Center Air Medical Access Needs and Feasibility Study*, September 2002-March 2003, March 4, 2003, pp. B1-B6.)

expected flight volume would be approximately 453 patients per year or slightly over 1 patient arrival by medical helicopter per day.

SFGH does not propose a hospital-based helicopter program; that is, it would not operate as a base for any air medical ambulance service helicopter nor provide fueling or other maintenance services on site; fuel would not be stored on-site. A helicopter would not reside on the proposed medical helipad, and no helicopter flight crew staging or rest areas would be constructed. Therefore, SFGH would not be a designated heliport.

The typical medical mission flights would be made with medium-size helicopters used by the three main medical transportation services serving the greater San Francisco Bay Area: REACH, CalStar, and Stanford Life Flight. In addition, several public agencies, such as the U.S. Coast Guard, operate helicopters that can be used for emergency medical services. These agencies list several types of helicopters that are similar in size to those used by REACH, CalStar, and Stanford Life Flight, and would be expected to use the SFGH medical helipad only occasionally. Though the helipad would be designed to accommodate larger size helicopters, such as those operated by the National Guard, it is not anticipated that these helicopters would land and take off from the SFGH medical helipad except during extreme multi-casualty incidents or disasters.

### Flight Paths

Helicopter emergency medical service (HEMS) flights originate from many directions in the greater Bay Area. Helicopters primarily follow major surface arterials and freeways from a pick-up site. Helicopters would follow standard approach paths to SFGH.

Project helicopters would take off and land at any time of day or night and would potentially operate 365 days per year. For optimum performance, helicopters would take off and land into the wind. In San Francisco, the wind is predominantly westerly (from the west) to northwesterly. Two approach/departure paths oriented to be a minimum of 90 degrees apart are recommended by the FAA for a helipad. Alternate approach/departure paths allow the pilot to adjust to a change in wind direction by choosing an appropriate flight path.

The flight paths described in this Initial Study for helicopters traveling to and from the SFGH medical helipad are the typical routes pilots would be directed to follow when landing at SFGH. However, the exact flight path route is ultimately left to the discretion of each pilot. Factors such as wind and inclement weather are considered by the pilots, and flight paths are adjusted accordingly.

### *Northbound*

Since wind typically comes from the north/northwest direction, helicopters would generally approach the medical helipad from the south, as a northbound flight (see Figure 5: Representative



Northbound Flight Paths from Various Approaches). These representative northbound flight path routes would provide a clear approach, free of obstruction by buildings, trees, utility poles, and wires. As shown on Figure 5, flights originating from the south would most likely travel either northbound along U.S. 101 or northeast-bound along Interstate 280. Those originating from the north would likely fly over the north and northwest portions of San Francisco towards the convergence of U.S. 101 and Interstate 80, traverse 16<sup>th</sup> Street, and circle clockwise around the Central Basin area of the edge of San Francisco Bay, to approach from the south. Flights from the east would cross San Francisco Bay near the Islais Creek Channel. As flights approach the immediate vicinity of the hospital, the approach would be over or near the parking garage just south of the campus and the Emergency/Visitor Parking Lot on the south side of the Main Hospital (see Figure 2, p. 4, for the campus locations mentioned in this description). Departing helicopters would fly west and continue north over the hospital central courtyard and 22<sup>nd</sup> Street. These flights would continue along Potrero Avenue to U.S. Highway 101/Interstate 80 and then would generally tend to follow freeways or other major arterial roadways.

### *Southbound*

The southbound flight path approach would be used during some periods of the year when the prevailing wind direction is from the south/southeast, for example, during winter storms (see Figure 6: Representative Southbound Flight Paths from Various Approaches). Like the northbound approach, the representative southbound flight path routes would provide a clear approach, free of obstruction by buildings, trees, utility poles, and wires. Flights originating from the north would either travel over the north and northwest portions of San Francisco towards the convergence of U.S. 101 and Interstate 80, or south along Interstate 80. Flights from the east would cross San Francisco Bay south of the Mission Creek Marina. Flights originating from the south would follow U.S. 101 or Interstate 280, circle counterclockwise along the edge of San Francisco Bay and turn west across Mission Bay just south of the Mission Creek Channel. As flights approach the immediate vicinity of the hospital, the approach would typically follow Potrero Avenue and continue south over the hospital central courtyard (see Figure 2, p. 4, for the campus locations mentioned in this description). Departing helicopters would fly south over the Emergency/Visitor Parking Lot and over the parking garage just south of the campus, then would generally tend to follow freeways or other major arterial roadways.





SOURCE: Turnstone Consulting

- Project Site
- - - SFGH Campus Boundary
- █ Flight Path



**SFGH MEDICAL HELIPAD**

2003.1200E

**FIGURE 5: REPRESENTATIVE NORTHBOUND FLIGHT PATHS  
FROM VARIOUS APPROACHES**





SOURCE: Turnstone Consulting

- Project Site
- SFGH Campus Boundary
- █ Flight Path



SFGH MEDICAL HELIPAD

2003.1200E

**FIGURE 6: REPRESENTATIVE SOUTHBOUND FLIGHT PATHS FROM VARIOUS APPROACHES**

## Project Schedule

Construction is anticipated to take 9 to 12 months and would begin after SFGH receives final approval from the California Office of Statewide Health Planning and Development (OSHPD). Construction costs are expected to total about 2.5 million dollars.

## Related Projects

Anticipated projects that may be considered on and in the vicinity of the SFGH Main Campus include the Livable Streets project along Potrero Avenue and the future SFGH Master Plan project. Both are separate from this helipad project. The potential for cumulative impacts of these anticipated future projects is discussed on pp. 55-56, in the Mandatory Findings of Significance Section of the Initial Study.

## **II. SUMMARY OF POTENTIAL ENVIRONMENTAL EFFECTS**

### **A. EFFECTS FOUND TO BE POTENTIALLY SIGNIFICANT**

The Initial Study examines the SFGH Medical Helipad project in order to identify potential significant effects on the environment. On the basis of this study, project-specific effects that have been determined to be potentially significant include noise, shadow, and hazards (which includes safety). These issues will be analyzed in the Environmental Impact Report (EIR). Items under these topics noted "TO BE DETERMINED" mean that discussion in the EIR will determine whether or not there would be a significant impact.

### **B. EFFECTS FOUND NOT TO BE POTENTIALLY SIGNIFICANT**

The following effects of the SFGH medical helipad project have been determined to be either insignificant or to be mitigated to less-than-significant levels through mitigation measures identified herein: land use, visual quality, population, transportation/circulation, air quality/climate, utilities/public services, biology, geology/topography, water, energy/natural resources, and cultural resources. These issues are discussed below and require no further environmental analysis in the EIR, except, as noted, some may be included for informational purposes.



### III. ENVIRONMENTAL EVALUATION CHECKLIST AND DISCUSSION

#### A. COMPATIBILITY WITH EXISTING ZONING AND PLANS

	<u>Not Applicable</u>	<u>Discussed</u>
1. Discuss any variances, special authorizations, or changes proposed to the City Planning Code or Zoning Map, if applicable.	—	<u>X</u>
2. Discuss any conflicts with any adopted environmental plans and goals of the City or Region, if applicable.	—	<u>X</u>

#### San Francisco Planning Code

The San Francisco Planning Code, which incorporates the City's Zoning Maps, implements the *San Francisco General Plan* and governs permitted uses, densities, and configuration of buildings within the City. Permits to construct new buildings (or to alter or demolish existing ones) may not be issued unless (1) the proposed project conforms to the Planning Code, (2) an allowable exception is granted pursuant to provisions of the Code, or (3) amendments to the Code are included as part of the project.

The project site is in a P (Public) Use district, which applies to land owned by a governmental agency and used for public purposes, and in a 105-E Height and Bulk district, which permits buildings up to 105 feet in height, with a maximum building length and diagonal dimension of 110 feet and 145 feet, respectively, above 65 feet in height. The proposed project does not require variances, special authorizations, or changes to the City Planning Code or Zoning Maps. The Main Hospital at this site is a permitted use under current zoning, and a medical helipad is considered an accessory use to the underlying City-owned hospital use.

#### Required Approvals

As part of implementation of the proposed project, the San Francisco Planning Commission will hold a public hearing on the Draft EIR and will certify the Final EIR. The Planning Commission will consider an amendment to the existing SFGH Institutional Master Plan, pursuant to San Francisco Planning Code Section 304.5, Institutional Master Plans. The Planning Commission will also consider the proposed project in relation to the City's *General Plan* and will make a recommendation to the decision-making body as to conformity with the *General Plan*, pursuant to San Francisco Charter §4.105, Planning Commission Referral of Certain Matters, No. 3. Following certification of the Final EIR, the San Francisco Public Health Commission will consider approval of the proposed medical helipad at a public hearing. In addition, the Board of Supervisors will consider a resolution approving the project. Permits for this hospital-related use are not required from the City Department of Building Inspection. The project does require several permits and approvals from other agencies that would be necessary prior to construction



and operation of the proposed project: A California Department of Transportation (Caltrans) site approval permit (DA 201 Form) would need to be secured from the Division of Aeronautics; this permit application requires the final CEQA document and the Board of Supervisors resolution approving the project. The Federal Aviation Administration would review an airspace study (FAA Form 7480-1) and make a determination regarding the use of the SFGH medical helipad in navigable airspace. The California Office of Statewide Health Planning and Development (OSHPD) is responsible for overseeing all aspects of the physical construction of the medical helipad. The OSHPD would review the proposed project's construction drawings and specifications for California Building Code compliance and would issue a building permit.

## **Plans and Policies**

Environmental plans and policies are those, like the Bay Area Clean Air Plan, that directly address environmental issues and/or contain targets or standards which must be met in order to preserve or improve characteristics of the City's physical environment. The current proposed project would not obviously or substantially conflict with any such adopted environmental plan or policy.

The *San Francisco General Plan*, which provides general policies and objectives to guide land use decisions, contains some policies that relate to physical environmental issues. The current project would not obviously or substantially conflict with any such policy. The compatibility of the project with General Plan policies that do not relate to physical environmental issues will be considered by decisionmakers as part of their decision whether to approve or disapprove the proposed project and any potential conflicts identified as part of that process would not alter the physical environmental effects of the proposed project. The project site is designated as a Public Health Center in the Community Facilities Element of the *San Francisco General Plan*. The proposed medical helipad project to construct a helipad on SFGH's Main Hospital building would be consistent with this *General Plan* designation and no amendment would be required. As discussed above, the project requires a *General Plan* Referral, as a project for the construction or improvement of public buildings or structures within the City and County (SF Charter §4.105, Planning Commission Referral of Certain Matters, No. 3).

The project would not obviously conflict with any other regional environmental plan or policy. Relevant policies adopted by the Bay Area Air Quality Management District are discussed below under Air Quality, pp. 36-42.

In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which added Section 101.1 to the City Planning Code to establish eight Priority Policies. These policies are preservation and enhancement of neighborhood-serving retail uses; protection of neighborhood character; preservation and enhancement of affordable housing; discouragement of commuter automobiles; protection of industrial and service land uses

from commercial office development and enhancement of resident employment and business ownership; maximization of earthquake preparedness; landmark and historic building preservation; and protection of open space. Prior to issuing a permit for any project that requires an Initial Study under the California Environmental Quality Act (CEQA); prior to issuing a permit for any demolition, conversion, or change of use; and prior to taking any action that requires a finding of consistency with the *General Plan*, the City is required to find that the proposed project or legislation is consistent with the Priority Policies. The Priority Policies, which provide general policies and objectives to guide certain land use decisions, contain some policies that relate to physical environmental issues. The current project would not obviously or substantially conflict with any such policy. As part of determining consistency with the *General Plan*, the Planning Commission will consider other potential conflicts with the Priority Policies and will weigh the Priority Policies and decide whether, on balance, the project is consistent with the Priority Policies.

## B. ENVIRONMENTAL EFFECTS

Except for the categories of noise, shadow, and hazards, all items in the Initial Study Checklist have been checked "No," indicating that, upon evaluation, staff have determined that the proposed project could not have a significant adverse environmental effect. Several of those Checklist items have also been checked "Discussed," indicating that the Initial Study text includes discussion about that particular issue. For all of the items checked "No," without discussion, the conclusions regarding potential significant adverse environmental effects are based upon field observation, staff experience and expertise in similar projects, and/or standard reference materials available within the Department, such as the Department's *Transportation Guidelines for Environmental Review*, or the California Natural Diversity Data Base and maps, published by the California Department of Fish and Game. As discussed above, for Checklist items noted as "TO BE DETERMINED," staff have determined that the proposed project may result in a potentially significant impact. Therefore, these items will be analyzed further in the EIR. For each Checklist item, the evaluation has considered the impacts of the project both individually and cumulatively. The text following each topic includes discussion of the particular Checklist items.

1.	<u>Land Use</u> - Could the project:	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a.	Disrupt or divide the physical arrangement of an established community?	—	<u>X</u>	<u>X</u>
b.	Have any substantial impact upon the existing character of the vicinity?	—	<u>X</u>	<u>X</u>

The project site is currently in use as a public hospital campus and is occupied by hospital buildings, medical-related office buildings, support structures, a parking structure, surface parking lots, and green space. The campus is located between the Mission District and Potrero Hill neighborhoods and covers approximately 23 acres. It is bounded on the west by Potrero Avenue, on the north by U.S. Highway 101 and 20<sup>th</sup> Street, on the east by U.S. Highway 101, and on the south by 24<sup>th</sup> Street. SFGH became a fully operable hospital on the site in 1886. The five- and six-story brick buildings that remain on the site date from 1915 and 1936 and are currently used for offices and research facilities. The seven-story Main Hospital building was constructed in 1972. The proposed medical helipad would be constructed on a portion of the Main Hospital building's rooftop.

Land use in the immediate vicinity consists mainly of residential and mixed residential / commercial uses. Based on visual reconnaissance, many of the existing residential and commercial structures appear to have been constructed during the early 1900s to 1950s. Most are two- and three-story wood-frame buildings, some with commercial uses such as restaurants and small neighborhood service businesses on the ground floor.

Neighborhood character near the project site is influenced by a mixture of land use intensities, which include multi-unit residential buildings and neighborhood-serving commercial uses adjacent to SFGH, and by Potrero Avenue and U.S. Highway 101 roadways adjacent to the west and east, respectively, which carry heavy traffic volumes during peak periods. News station helicopters often monitor traffic conditions along the roadways, particularly the segment of U.S. Highway 101 adjacent to SFGH referred to as "hospital curve".

Nearby schools include the Buena Vista Alternative School, located on San Bruno Avenue and 25<sup>th</sup> Street, and Bryant Elementary School on Bryant and 23<sup>rd</sup> Streets; these schools are located two blocks to the south and west of the Hospital Campus, respectively. The nearest Recreation and Park Department facilities in the vicinity are the Potrero Del Sol Park and James Rolph Junior Playground, located three blocks to the south at Potrero Avenue and Cesar Chavez Street, the Parque Niños Unidos Clubhouse, located seven short block dimensions west at 23<sup>rd</sup> and Treat Streets, and the Jose Coronado Clubhouse, located about eight short block dimensions northwest at 21<sup>st</sup> and Folsom Streets. McKinley Square Park is about one long block dimension away from the north boundary of the SFGH campus across U.S. Highway 101 and approximately 1,000 feet from the main hospital building.

The proposed medical helipad would be constructed on the rooftop of the existing hospital building. Its operation would be consistent with ongoing emergency services on the Hospital Campus, which have been associated with the hospital since its inception. Given that helicopters would be confined to one landing location on the campus, the helipad would not physically disrupt or divide the Hospital Campus or the immediate vicinity.



Flight operations would traverse air space in the adjacent neighborhood. Though the actual flight paths would not physically disrupt or divide land uses in the vicinity, noise generated by helicopters using the flight paths could impact neighborhood character. The EIR will analyze the noise impacts generated by the project, including impacts on the neighboring community from noise generated within the flight paths, under the topic of Noise.

In conclusion, the project would not result in a significant land use impact, and this topic requires no further analysis. However, land use will be discussed in the EIR for informational purposes and to provide context.

2.	<u>Visual Quality</u> - Could the project:	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a.	Have a substantial, demonstrable negative aesthetic effect?	___	<u>X</u>	<u>X</u>
b.	Substantially degrade or obstruct any scenic view or vista now observed from public areas?	___	<u>X</u>	<u>X</u>
c.	Generate obtrusive light or glare substantially impacting other properties?	___	<u>X</u>	<u>X</u>

#### Aesthetic Effect

The project would involve construction of a helipad platform on a portion of the rooftop of the SFGH Main Hospital building, located in the southeastern portion of the campus. The hospital building is a seven-story, approximately 617,400-gsf building. The proposed medical helipad location would be on the rooftop of Wing C, in the southwest corner. This roof area is 105 feet above the grade elevation and is surrounded by a 42-inch-high concrete parapet wall.

The proposed 54-foot by 54-foot (approximately 3,000-square-foot) helipad platform would either be constructed from steel and concrete, or installed as a prefabricated aluminum framing system with a helipad surface. The platform would rise approximately five feet above the existing roof level and would extend approximately 1½ feet above the existing parapet wall. Five-foot-wide safety netting would border the platform, but would not extend beyond the building walls. An 8- to 16-foot-wide, L-shaped access ramp would be constructed along on the eastern edge of the platform; medical personnel would wheel the patients from the helicopter down the ramp to the east-bank elevator tower on the hospital building rooftop northeast of the proposed medical helipad location. Modifications to the east elevator penthouse would be required to accommodate rooftop elevator access. The elevator penthouse would be raised approximately six feet to accommodate equipment needed to operate elevators on the roof level. An attached 940-square-foot, 12½-foot-tall enclosed vestibule would also be constructed off the



entrance to the new elevator doors for the privacy of arriving patients as they are wheeled into the elevator. As discussed in the Project Description, p. 5, several additional rooftop design elements would be needed to operate the medical helipad. These include a lighted wind cone and fire suppression equipment.

Design and aesthetics are, by definition, subjective and open to interpretation by decision makers and members of the public. A proposed project would therefore be considered to have a significant adverse effect on visual quality only if it would cause a substantial and demonstrable negative change.

#### Alteration or Obstruction of Public, Scenic Views

The proposed helipad platform would rise about 1½ feet above the parapet wall of the existing hospital rooftop. No portion would extend beyond the edge of existing building walls. The helipad would be visible from ground-level vantage points on the Hospital Campus, in the adjacent neighborhoods to the north, west, and south, and from the nearest Recreation and Park Department facilities.<sup>9</sup> The helipad would appear as part of the rooftop structures and would not substantially stand out from them.

The existing east elevator penthouse is incrementally visible from ground-level vantage points on the Hospital Campus, from the adjacent surrounding neighborhoods, and the nearest Recreation and Park Department facilities. The planned rooftop extension to this east elevator penthouse would be approximately six feet above the existing height of the penthouse. The attached 940-square-foot vestibule would extend about nine feet above the existing parapet wall. These modifications would be utilitarian structures that would appear similar to the existing rooftop appurtenances. They would introduce a relatively small addition in height in relation to the building. The project would be a relatively small addition to the hospital roof, and would not significantly affect scenic views or public vistas.

For these reasons, and because the building alterations would be minor in relation to the whole roof plan and the hospital itself, visual impacts of the proposed medical helipad from nearby public scenic views would not be substantial, and therefore substantial demonstrable negative aesthetic effect would not occur due to the project.

The medical helipad, elevator modifications, and building roof would be visible from some private residential locations in the Potrero Hill neighborhood to the east. Most views of the proposed medical helipad from the Potrero Hill neighborhood would be partially screened by

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<sup>9</sup> The nearest Recreation and Park Department facilities are the Potrero Del Sol Park and the James Rolph Junior Playground, located three blocks to the south at Potrero Avenue and Cesar Chavez Street; the Parque Niños Unidos Clubhouse, located seven blocks west at 23<sup>rd</sup> Street and Treat Street; and McKinley Square, located west across Highway 101 and one block north.

existing rooftop equipment structures. The helipad structure would not be sufficiently tall to block long-range views from those homes. Elevator modifications could partially obstruct some private views as seen from the Potrero Hill neighborhood; such obstructions would not be substantial.

### Views of Helicopters

The project would result in helicopter flyovers. Nearby residents and workers in the surrounding neighborhood and Medical Campus would see helicopters flying overhead and taking off and landing. Such impacts on views would be transitory in nature, would occur three times a day or less, and would affect a rather small portion of available views at any time. Like existing news/traffic-watch helicopters over Highway 101 near the site, the visual presence of helicopters in the air may be annoying to area residents. However, this would not be considered a significant visual impact under CEQA. Noise impacts of helicopters will be discussed in the EIR Noise section, as noted on p. 36 of this Initial Study.

### Light and Glare

The Hospital Campus exterior building and parking lot lighting are existing sources of light and glare. No mirrored glass would be incorporated into the project design. The proposed project would introduce new helicopter safety lighting on the medical helipad deck, and lighting in the vicinity of the access ramp and near the elevator vestibule on the rooftop of Wing C. All helipad-affiliated lighting would be manually switched on upon notification of an approaching helicopter landing; at all other times, rooftop helipad lighting would be turned off. The helipad lighting provided on the helipad deck would be a quartz halogen illuminator system with an optical fiber ring. This ring of light on the helipad deck would be green in color and would provide a low level of light to provide helicopter pilots with the precise location of the medical helipad. Bright lights aimed toward the sky would not be installed because they could interfere with the pilot's vision. Additional lighting would include safety lighting to identify the wind cone, fire suppression equipment, safety netting, and other helipad rooftop accessories. General lighting to illuminate the helipad area would also be installed on a manual switch. All lighting except the optical fiber ring in the helipad deck would be shielded and directed downward on equipment and pedestrian walkways and would not create light above acceptable levels for a hospital campus. For these reasons, the project would not have a significant impact regarding light and glare. Therefore, this topic will not be discussed further in the EIR.

Helicopters are equipped with standard safety lighting features that operate while the aircraft is in motion. Though equipped with beacon-type fixtures, helicopters landing at the proposed SFGH medical helipad would obtain navigational visual guidance from lighting on the helipad deck, not from on-aircraft light sources, and thus would not substantially disrupt the surrounding neighborhood with onboard aircraft lighting.

## Conclusion

The project would not have a demonstrable negative aesthetic effect, adversely affect scenic views or vistas available to the public, or include an unusual amount of light or glare, for an urban area. Therefore, no further discussion is required in the EIR.

3.	<b><u>Population</u></b> - Could the project:	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a.	Induce substantial growth or concentration of population?	___	<u>X</u>	<u>X</u>
b.	Displace a large number of people (involving either housing or employment)?	___	<u>X</u>	<u>X</u>
c.	Create a substantial demand for additional housing in San Francisco, or substantially reduce the housing supply?	___	<u>X</u>	<u>X</u>

The proposed project involves the construction of a new medical helipad on the rooftop of the existing Main Hospital building at SFGH. Construction of the helipad would not displace any existing hospital employees or patients, nor create a demand for any additional hospital staff, as staffing needs would fall within SFGH's existing overall staffing plan. Additionally, existing hospital facilities, programs, and employees would continue to function during project construction and after the medical helipad is in operation. Hospital patients would not be relocated or displaced due to the project. The project would not result in the displacement of existing housing because there is no housing currently on the site.

Between the five-year period of fiscal year (FY) 99/00 and FY 04/05, SFGH admitted an average of approximately 1,500 trauma patients per year, which is about nine percent of total acute hospital admissions. SFGH expects initially to treat approximately one patient per week brought by helicopter from the scene of an emergency incident, or about 53 patients per year. As the program becomes more established within the next two-year period, physicians and hospitals in the region would become aware that SFGH operates a medical helipad for trauma patients, and additional patients would probably be transferred to the Trauma Center from other hospitals (inter-facility transfers). At this level of the program, SFGH estimates approximately 400 inter-facility transfer patients per year could be transported by medical helicopter to the hospital, or about eight to nine patients per week. As the project reaches full maturity (four to five years from its inception), SFGH anticipates that there could be approximately 700 patients a year; that is, on a rare peak air-transport day, up to three patients per day could be transported to or from the medical helipad. This 700-patient-per-year volume would include approximately 240 patient transports for tertiary referral to other hospitals (as discussed on p. 8). Not all of the 453 SFGH



patients would necessarily be admitted to the SFGH Trauma Center. If all were admitted, this number would represent about a 30 percent increase over existing average annual Trauma Center patient admissions. SFGH expects the maximum patient transports would be substantially fewer than three per day, likely closer to an average of about one patient per day or eight to nine patients per week.<sup>10</sup> Studies indicate that hospital-based helicopter programs in the western United States average about 700 transports per year.<sup>11</sup> Hospital-based programs operate as a base for medical ambulance service helicopters and provide fueling or other maintenance services on site. Since SFGH would not provide a hospital-based helicopter program, it is unlikely that a level of three patients per day would be reached. For comparison, Stanford Hospital, in Santa Clara County, has been in operation for about 21 years. That facility does operate a hospital-based helicopter program and transports about 700 patients per year (roughly 13 patients per week or 2 patients per day). Therefore, the analysis for the SFGH medical helipad uses a conservatively high estimate of 700.

Based on its existing staffing plan, SFGH has indicated that the project would not be expected to add additional employees or create the need to construct other new facilities to staff and operate the Trauma Center with the increased number of trauma patients arriving by medical helicopter. SFGH Medical Center currently is staffed with approximately 5,400 employees.<sup>12</sup> This number includes the physicians, nurses, therapists, and health care workers who provide direct patient care and support services to injured adults and children. The sections of SFGH responsible for providing direct care to the trauma patient include the Emergency Department; Radiology and Imaging; Surgery; Recovery/Post Anesthesia Unit; Intensive Care Unit; Medical/Surgical Nursing Units; Rehabilitation Services (Physical Therapy, Occupational Therapy, and Speech Therapy); Medical Social Services; Mental Health Support Services; and Ambulatory Care Clinics. As such, there is no single trauma care “department” or “unit.” Each of these services has staffing plans to provide trauma care 24 hours, 7 days a week. The plan also includes the ability to assign or re-allocate staff resources based on trauma patients’ needs and fluctuations in patient volumes. Due to the flexible nature of this comprehensive staffing plan, SFGH has stated that the existing hospital staffing levels would be able to accommodate the additional one trauma patient per week attributed to helicopter landings during the first year of operation, the eight to nine patients per week when the program is more established (years 2 through 3), and future maximum projections of up to about three patients on a peak air-transport day after the program

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<sup>10</sup> Gerson/Overstreet Architects, *San Francisco General Hospital Medical Center Air Medical Access Needs and Feasibility Study*, September 2002-March 2003, March 4, 2003.

<sup>11</sup> W. Rau, “2000 Annual Transportation Statistics and Fees Survey,” *AirMed*, July/August 2000, pp. 17-20.

<sup>12</sup> SFGH Annual Presentation to the San Francisco Health Commission, December 21, 2004. Of the 5,400 employees, approximately 2,800 are employees of the City and County of San Francisco, and about 2,600 are employees of UCSF.



reaches full maturity (four to five years from its inception).<sup>13</sup> Any changes in numbers of staff would fall within normal daily fluctuations that occur based on patient requirements for care. Therefore, the proposed project would not induce a substantial growth or concentration of population since the maximum number of added trauma patients attributed to the project could be accommodated within existing SFGH hospital facilities and staffing levels.

The proposed project would not result in a substantial increase in employment at SFGH and, therefore, would not increase demand for housing in San Francisco. The residency patterns and locations of existing SFGH employees would not be affected by the project.

Based on the discussion and analysis above, the project would not induce substantial growth or concentration of population, nor would it displace housing, employment, or hospital patient populations, or create a substantial demand for additional housing in San Francisco. No significant physical environmental effects on population would occur due to the project, and these issues require no further analysis in the EIR.

4.	<b>Transportation/Circulation</b> - Could the project:	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a.	Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system?	___	<u>X</u>	<u>X</u>
b.	Interfere with existing transportation systems, causing substantial alterations to circulation patterns or major traffic hazards?	___	<u>X</u>	<u>X</u>
c.	Cause a substantial increase in transit demand which cannot be accommodated by existing or proposed transit capacity?	___	<u>X</u>	<u>X</u>
d.	Cause a substantial increase in parking demand which cannot be accommodated by existing parking facilities?	___	<u>X</u>	<u>X</u>

The proposed project is a medical helipad. Operation of the helipad would be restricted and it would not be available for general public use. The following discussion of transportation and circulation relates to issues affecting ground transportation only.

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<sup>13</sup> Susan Currin, RN, MS, Chief Nursing Officer, SFGH, memorandum, August 20, 2004, and Chris Waschmuth, Project Manager for the SFGH Medical Helipad Project and Administrator for Trauma Services, SFGH, written communication, January 5, 2005. A copy of this document is available for review, by appointment, at the Planning Department, 1660 Mission Street, San Francisco, as part of the project file.

## Traffic

### *Emergency Medical Ground Transportation*

Trauma patients are transported to the SFGH Trauma Center primarily by the San Francisco Fire Department, which provides the largest number of 911 responses in the City of San Francisco. There are also five basic and advanced life support ambulance companies staffed with paramedics and Emergency Medical Technicians (EMTs) authorized to operate in the City and County of San Francisco by the City and County of San Francisco Emergency Medical Services Administration (EMSA). Emergency Medical Service (EMS) ground-transportation providers indicate that access routes to SFGH are handled individually, on a case-by-case basis. The most important factor is the degree and severity of the patient's injury or illness. Other considerations that affect selection of traffic routes are traffic conditions (which can be affected by a number of outside and unforeseen conditions such as roadway accidents), time of day, weather, and construction activities. Each provider and their dispatchers monitor these factors to determine the most expeditious ground-transportation routes to access SFGH.

Ambulance services are permitted to pre-empt traffic when patients such as trauma victims require immediate medical attention, and the California vehicle code requires vehicle operators to yield to emergency vehicles, including ambulances. During 2003, the Emergency Communications Department responded to 71,610 calls for emergency medical assistance within the City and County of San Francisco.<sup>14, 15</sup>

Each provider selects the appropriate surface street routes, depending on the location of the emergency patient and the factors described above. Major freeway access to SFGH is from U.S. 101 and Interstate 280 (I-280) both northbound and southbound. The major surface street used to access the hospital is Potrero Avenue via either 16<sup>th</sup> Street or Cesar Chavez Street.

### *Freeway and Major Surface Street Access*

U.S. Highway 101 is a four- to eight-lane freeway providing access south to San Jose and north to Marin County. Near the project site, U.S. 101 is a six-lane freeway that provides southbound and northbound freeway access via Cesar Chavez Street. Freeway access is also provided from I-280, which extends from the China Basin and South Beach areas to southern portions of San Francisco and the Peninsula, including northern San Mateo County. I-280 is a six-lane freeway

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<sup>14</sup> City and County of San Francisco, *Emergency Medical Services Agency Annual Report*, 2003.

<sup>15</sup> Although northern San Mateo County is in the service area for the proposed SFGH medical helipad, San Mateo does not provide ground transportation emergency medical service outside of its county limits. Therefore, the total number of 2003 EMS calls does not include San Mateo. (Barbara Pletz, Administrator, San Mateo County Emergency Medical Services, telephone conversation with Donna Pittman, Pittman & Associates, September 8, 2005.)

that provides northbound and southbound off-ramps to Cesar Chavez Street, which provides access to SFGH via Potrero Avenue.

In November 1990, the Board of Supervisors designated the San Francisco County Transportation Authority (SFCTA) as the Congestion Management Agency (CMA) for the County. As required by California Government Code Section 65089 (a), the CMA must develop, adopt, and update a biennial Congestion Management Plan (CMP) that includes monitoring the performance of major thoroughfares and the freeway system within the designated congestion management program network. The established operating standards for the CMP-designated network of roadway facilities is LOS E or the previous current Level of Service, if better.<sup>16</sup> U.S. 101, I-280, Potrero Avenue and Cesar Chavez Street are included in the CMP network.

Three roadway segments of U.S. 101 were included in the June 2004 CMP Level of Service Monitoring Report: U.S. 101 between Laguna/Fell and I-80; U.S. 101 between I-280 and I-80 (a portion of which includes “hospital curve”); and U.S. 101 between I-280 and the southern County limit.<sup>17</sup> Two segments of I-280 are included west of the project site: I-280 between the County limit and U.S. 101, and I-280 between U.S. 101 and 6<sup>th</sup>/Brannan Streets. A summary of the Level of Service (LOS) conditions on these freeway segments is shown in Table 1 for the 2004 monitoring period.<sup>18</sup>

As shown in Table 1, during the a.m. peak period all U.S. 101 freeway segments operate at LOS E or better, meeting the CMP standard, except for the segment between I-280 and I-80 in the northbound direction which operates at LOS F. During the p.m. peak period, southbound U.S. 101 operates at LOS F between the county limit and I-280. Southbound I-280 operates at LOS F between the U.S. 101 / 6<sup>th</sup> - Brannan Street segment. All other segments of I-280 operate at LOS E or better, meeting the CMP standard, during the p.m. peak hour. During off-peak hours the level of service on the U.S. 101 and I-280 freeway segments is expected to be equal to or better than the levels of service shown in Table 1 below.

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<sup>16</sup> *San Francisco Congestion Management Plan*, November 2003, and *Level of Service Monitoring Report*, June 2004.

<sup>17</sup> The segment between Laguna/Fell and I-80 was closed and partially demolished for the new Central Freeway Project after the CMP network was established.

<sup>18</sup> Level of Service (LOS) is a traffic engineering concept designed to describe the operating conditions on a roadway. LOS describes operating conditions on a scale of A to F, with “A” describing free flow and “F” describing bumper-to-bumper conditions. Attributes that make up the A to F degrees of the LOS scale are a mixture of quantitative measure (such as speed and travel time), and qualitative observations, such as freedom to maneuver. The *Level of Service Monitoring Report*, pp. 1-3, June 2004, provides a detailed description of the methodology used by the CMA to conduct LOS monitoring for both freeway segments and major thoroughfares.



**Table 1: Freeway Level of Service Monitoring (2004)**

<u>Roadway Segment</u>	<u>AM Peak Period</u> <u>(7:00 to 9:00 am)</u>		<u>PM Peak Period</u> <u>(4:00 to 6:00 pm)</u>	
	N/B	S/B	N/B	S/B
<b>U.S. 101</b>				
County Limit / I-280	E	E	E	F
I-280 / I-80	F	E	F	E
I-80 / Laguna Fell <sup>(1)</sup>	n/a	n/a	n/a	n/a
<b>I-280</b>				
County Limit / U.S. 101	D	C	D	E
U.S. 101 / 6 <sup>th</sup> -Brannan	E	C	D	F

*Note:*

<sup>1</sup> This segment of U.S. 101 was closed and partially demolished due to construction of the new Central Freeway Structure. Previous monitoring conducted in 1993 indicates that this segment operated at LOS F during both the a.m. and p.m. peak periods in each direction.

*Source:* San Francisco County Transportation Authority, Level of Service Monitoring Report, June 2004.

Potrero Avenue is a designated Major Thoroughfare and Transit Preferential Street in the Transportation Element of the *San Francisco General Plan*. It is also a dedicated bicycle route between 17<sup>th</sup> and 25<sup>th</sup> Streets. Potrero Avenue provides direct access to SFGH, as well as access to downtown areas south of Market Street and freeway access to and from U.S. 101.

As part of the Livable Streets corridor project currently being implemented by the Department of Parking and Traffic, Potrero Avenue was redesigned in July 2005 to incorporate traffic calming features between 17<sup>th</sup> Street and Cesar Chavez Street.<sup>19</sup> Improvements include removal of one lane of traffic in each direction (a reduction from three to two lanes); installation of bike lanes, pedestrian refuge islands and crosswalks, and installation of left turn lanes at key intersections. In the vicinity of the hospital, other changes include a northbound, dedicated bus lane between 25<sup>th</sup> and 23<sup>rd</sup> Streets.

Cesar Chavez is a designated Major Arterial in the General Plan. It is a four-lane street that serves as a link to the industrial and residential neighborhoods in the southeast section of the City from I-280, and provides a link from Bayshore Boulevard to U.S. 101 and access to SFGH via Potrero Avenue.

<sup>19</sup> The goal of the Livable Streets corridor projects is to increase safety for pedestrians and bicyclists, attempting to reduce negative impacts of auto traffic by redesigning these streets without limiting motor vehicle access or mobility. <http://www.sfgov.org/site/dpt-index.asp?26843> accessed October 25, 2005.



As required under the CMP by the SFCTA, traffic conditions were monitored for roadway segments along Potrero Avenue and Cesar Chavez Street for the 2004 period. Only those segments that were at LOS D, E or F during the last 1999 monitoring period were updated.

The 2004 CMP Level of Service Monitoring Report indicates that the segments of Potrero Avenue between 21<sup>st</sup> and Cesar Chavez operate at LOS C or better during the a.m. and p.m. peak hours. Since the initial traffic calming improvements have been implemented, DPT indicates that Potrero Avenue continues to operate similar to previous traffic conditions (i.e., LOS C or better) with occasional delays (one to two times per week) during the a.m. and p.m. peak hours when Potrero Avenue is used as an alternate route to avoid congestion on U.S. 101. Once traffic calming improvements are fully implemented, DPT will re-evaluate and conduct further traffic counts along Potrero to assess traffic operating conditions, as part of the Livable Streets program.<sup>20</sup>

Congestion monitoring on certain segments on Cesar Chavez Street was updated for the 2004 monitoring period. Cesar Chavez operated at LOS C or better during the a.m. peak period except for the segment between South Van Ness and Guerrero (LOS D). During the p.m. peak period, street segments on Cesar Chavez Street operated at LOS E or better. These segments include Cesar Chavez between Guerrero and South Van Ness (LOS D); Kansas and Bryant Streets (LOS E); and Kansas and Third Streets (LOS D).

Based on the discussion above, existing ground transportation (roadways and freeways) serving SFGH currently operate in freeway traffic conditions that are generally delayed and in traffic volumes that are near capacity, or at capacity. During the a.m. and p.m. peak periods, all segments of Potrero Avenue operate in acceptable conditions; all segments of Cesar Chavez operate in generally delayed conditions, except the segment in the vicinity of SFGH which operates at an unacceptable level (LOS E) during the p.m. peak period.

### *Traffic Impacts*

The proposed project would provide air access for up to three trauma patients on a rare peak air-transport day. These patients would be in addition to existing trauma patients currently transported by EMS ground transportation to the SFGH Trauma Center who are already included in existing traffic conditions. The proposed project generally would not generate additional traffic from EMS vehicles, except occasionally when a patient is arriving by helicopter for transfer by ambulance to a specialty facility in the City (estimated to be about 20 landings per month, or about 240 per year). Assuming the same number of patient transfers as that for the now decommissioned Hunter's Point helipad site, approximately 240 ambulance transfers, or less than one per day, would occur annually. This would not be a substantial increase in daily or peak hour

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<sup>20</sup> Kevin Keck, Transit Planner, San Francisco Municipal Transportation Authority (MTA), telephone conversation, September 12, 2005; and Bonito Valesco, MTA, telephone conversation, October 24, 2005.

ground traffic generated by SFGH. The proposed project is not anticipated to increase traffic from employees, as the project is not expected to generate the need for additional staff at SFGH since anticipated demand would fall within the hospital's existing staffing plan. (Refer to the discussion in Population, on pp. 21-23 of this Initial Study, for a discussion of the hospital's staffing plan.)

Additional traffic could, however, be generated by family members and guests visiting trauma patients. This increase in traffic would be negligible (no more than five additional p.m. peak-hour person trips), and would not affect existing traffic conditions or street operations, or degrade the LOS on U.S. 101, I-280, Potrero Avenue, or Cesar Chavez Street.

As described above, the project would not cause an increase in traffic that is substantial in relation to the existing traffic and capacity of the street system. The increase in traffic would be minor and would not interfere with existing transportation systems, or cause substantial alterations to existing circulation patterns. Therefore, no significant physical environmental effects on traffic and existing transportation systems would occur due to the project, and traffic issues require no further analysis in the EIR.

### Transit

Within a four-block walking distance of the SFGH, there are six Muni bus lines: Routes 9-San Bruno, 19-Polk, 27-Bryant, 33-Stanyan, 48-Quintara/24<sup>th</sup> Street, and 53-Southern Heights. Routes 9 and 33 are located on Potrero Avenue directly west of the project site. Route 27 is about four blocks west on Bryant Street. East of the SFGH Campus, Route 53 is on Vermont Street, and Route 19 travels on Rhode Island Street and crosses over the U.S. 101 freeway on the 23<sup>rd</sup> Street overpass to access SFGH.

Local and regional transit access is provided by the Bay Area Rapid Transit District (BART) at the 24<sup>th</sup> Street BART station located at 24<sup>th</sup> and Mission Streets, approximately 2½ miles west of SFGH.

Transportation Services of the University of California San Francisco (UCSF) operates a shuttle service among campuses, including SFGH, and from the 24<sup>th</sup> Street BART station to SFGH. Shuttle service is for university-related travel only, and is restricted to use by campus faculty, staff, students, patients and patient family members, and guests. The inter-campus service to SFGH operates Monday through Friday from 6:40 a.m. to 8:30 p.m. The UCSF shuttle from the 24<sup>th</sup> Street BART to SFGH station operates Monday through Friday. During the morning commute hours, the shuttle operates from 6:00 a.m. to 9:00 a.m. with five- to ten-minute headways, and during the afternoon commute from 2:30 p.m. to 7:00 p.m. with ten-minute headways.

Demand-response transit service is also provided to SFGH by private companies within San Francisco and from nearby counties.<sup>21</sup>

### *Transit Impacts*

On a rare peak air-transport day (in other words, the busiest condition with the helipad project), three patients could be transferred to SFGH by helicopter; it is not expected that this would cause a transit impact. No substantial new employee transit trips would be generated by the project since the existing SFGH staffing plan would be able to accommodate additional daily and weekly patients attributable to the project. Families and friends visiting the additional trauma patients might generate new transit trips on the six Muni lines, BART, UCSF shuttle service, and taxis serving the project site. These transit trips, should they occur, would be spread out among carriers and in the inbound and outbound directions, and therefore would not cause a substantial increase in transit demand that could not be accommodated by existing transit capacity. Transit impacts of the project would not be a significant physical impact, and need not be addressed further in the EIR.

### Parking<sup>22</sup>

#### *Off-Street Parking*

A total of approximately 1,570 off-street parking spaces are available to staff, patients, and visitors and for loading at the SFGH Campus. Of this total, approximately 759 parking spaces are on the Hospital Campus or are located on portions of 22<sup>nd</sup>, Vermont, and San Bruno Streets, where parking is controlled by SFGH permits. The remaining 811 spaces are located in the SFGH public parking structure at 23<sup>rd</sup> and Utah Streets (including about 18 disabled accessible stalls). Approximately 1,557 of the total 1,570 parking spaces provided at the hospital are occupied, the equivalent of 99.2 percent occupancy. Of the 759 parking spaces on the Hospital Campus, approximately 746 are occupied (about 98.3 percent occupancy), and all of the 811 spaces in the public parking structure are occupied.

Previous studies and field observations indicate that the peak parking period in the hospital vicinity and garage is midday, between 1:00 and 3:00 p.m.<sup>23</sup> Parking is fully occupied at both locations during the peak parking period.

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<sup>21</sup> Demand response transit (also called paratransit or dial-a-ride) is comprised of passenger vans or small buses operating in response to calls from SFGH staff to transport patients or visitors to SFGH hospital facilities.

<sup>22</sup> Except as noted, information in this section is based on Carlos Villalva, SFGH Hospital Architect, *Turnstone Consulting Information Request*, January 5, 2005. A copy of this document is available for review, by appointment, at the Planning Department, 1660 Mission Street, San Francisco, as part of the project file.

<sup>23</sup> City and County of San Francisco, Planning Department, *San Francisco General Parking Garage Final EIR*, 88.271E, 1990; and Pittman & Associates, field observations, Tuesday, January 11, 2005 (2:00 p.m. to 3:00 p.m.).



Parking on the Hospital Campus is allocated as shown in Table 2, below:

**Table 2: Hospital Campus Parking by User Category**

<u>Category</u>	<u>Description</u>	<u>Spaces</u>
Staff	Employee, Paid Monthly Permits	360
Handicap	Disabled Accessible Parking, Staff or Public	42
Public	General Public, Paid Hourly Parking	191
Official	Official Department(s) Vehicles, Restricted <sup>1</sup>	81
Yellow	Commercial Loading, Time Limited	28
Pool	Employee Carpools/Vanpools, Paid Monthly Permits	<u>57</u>
<b>Total</b>		<b>759</b>

*Source:* Carlos Villalva, SFGH Hospital Architect, *Turnstone Consulting Information Request*, January 5, 2005. A copy of this document is available for review, by appointment, at the Planning Department, 1660 Mission Street, San Francisco, as part of the project file.

The 811-space public parking structure is open to the general public for both hourly and monthly parking (includes about 18 disabled-accessible stalls). A number of SFGH staff purchase monthly parking passes for the structure. The allotment of parking passes at the structure is managed by the Department of Parking and Traffic.

#### *On-Street Parking*

A Residential Permit Parking program (Parking Area W) has been established for the residential areas surrounding the SFGH Campus. This program limits on-street parking for nonresidents to one hour between 8:00 a.m. and 6:00 p.m. Residents eligible to purchase permit stickers are allowed to park on street for longer periods of time. In the vicinity of SFGH, however, there are on-street parking spaces bordering the Hospital Campus that are not in residential areas and are not included in the Residential Parking Permit program. These spaces are available for hospital parking by the public, including metered parking along Potrero Avenue in the vicinity of the Hospital Campus. As described on p. 26 of this Initial Study, approximately 15 on-street parking spaces have been removed on the west side of Potrero Avenue between 17<sup>th</sup> and 23<sup>rd</sup> Streets to accommodate a dedicated bus lane. Another 12 to 15 on-street parking spaces have been removed between 17<sup>th</sup> Street and Cesar Chavez Street to accommodate longer curbside bus stops

along the corridor.<sup>24</sup> Observations indicate that on-street parking in the hospital vicinity is fully utilized during peak periods.<sup>25</sup>

Permit parking for hospital staff is allowed on Vermont Street between 22<sup>nd</sup> and 23<sup>rd</sup> Streets. Although on-street parking by non-hospital staff is not allowed on this block of Vermont Street, illegal parking often occurs. On-street parking is also available west of Potrero Avenue. Although residential parking permit programs can deter long-term employee parking in nearby residential areas, some hospital employees and visitors of trauma patients may park on street regardless of these restrictions.

Parking effects due to the project would be expected to be minimal, as no more than approximately five additional visitors per day are likely to be generated by the SFGH medical helipad project (refer to the Parking Impacts discussion below). Because new numbers of employees would not be generated by the proposed project, there would not be additional demand for employee parking (see p. 22).

### *Parking Impacts*

The medical helipad landings would not substantially affect existing parking conditions at and in the vicinity of the SFGH Campus. Operation of the medical helipad would not increase the number of employees at SFGH and, therefore, would not increase employee parking demand on the SFGH campus and public parking structure. Visitor parking demand could increase due to visitors of additional trauma patients. There is no documentation of the average number of visitors per patient at SFGH; however, it is reasonable to assume that the addition of a maximum of three new trauma patients per day would result in no more than approximately five additional visitors per day. Because existing parking on the SFGH Campus and in the public parking structure is fully occupied during the peak parking demand period between 1:00 and 3:00 p.m., hospital visitors and outpatients who use SFGH public parking facilities may be required to search for on-street parking, especially during the peak midday parking period of 1:00 to 3:00 p.m.

San Francisco does not consider parking supply as part of the permanent physical environment. Parking conditions are not static, as parking supply and demand varies from day to day, from day to night, from month to month, etc. Hence, the availability of parking spaces (or lack thereof) is not a permanent physical condition, but changes over time as people change their modes and patterns of travel.

Parking deficits are considered to be social effects rather than impacts on the physical environment as defined by the California Environmental Quality Act (CEQA). Under CEQA, a

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<sup>24</sup> Kevin Keck, Transit Planner, San Francisco Municipal Transportation Agency (MTA), telephone conversation, September 12, 2005.

<sup>25</sup> Pittman & Associates, field observations, Tuesday, January 11, 2005 (2:00 p.m. to 3:00 p.m.)

project's social impacts need not be treated as significant impacts on the environment. Environmental documents should, however, address the secondary physical impacts that could be triggered by a social impact (*CEQA Guidelines* Section 15131(a)). The social inconvenience of parking deficits, such as having to hunt for scarce parking spaces, is not an environmental impact, but there may be secondary physical environmental impacts, such as increased traffic congestion at intersections, air quality impacts, safety impacts, or noise impacts caused by congestion. In the experience of San Francisco transportation planners, however, the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g., transit service, taxis, bicycles, or travel by foot) and a relatively dense pattern of urban development, induces many drivers to seek and find alternative parking facilities, shift to other modes of travel, or change their overall travel habits. Any such resulting shifts to transit service, in particular, would be in keeping with the City's Transit First policy. The City's Transit First Policy, established in the City's Charter Section 16.102, provides that "parking policies for areas well served by public transit shall be designed to encourage travel by public transportation and alternative transportation." The availability of Muni service, BART, and UCSF shuttles to the SFGH Campus provide alternatives to private auto use during the day and evening hours.

The transportation analysis accounts for potential secondary effects, such as cars circling and looking for a parking space in areas of limited parking supply, by assuming that all drivers would attempt to find parking at or near the project site and then seek parking farther away if convenient parking is unavailable. Moreover, the secondary effects of drivers searching for parking is typically offset by a reduction in vehicle trips due to others who are aware of constrained parking conditions in a given area. Hence, any secondary environmental impacts that may result from a shortfall in parking in the vicinity of the proposed project would be minor, and the traffic assignments used in the transportation analysis, as well as in the associated air quality, noise, and pedestrian safety analyses, reasonably address potential secondary effects. The project would not have a substantial impact on parking, and this issue will not be discussed further in the EIR. During construction, there would be a temporary loss of parking at the Hospital Campus that would affect parking conditions; refer to the discussion below of Construction-Related Impacts.

#### Construction-Related Impacts

Construction of the proposed medical helipad is anticipated to take approximately 10 months, but would involve varying and intermittent levels of activity during construction. Most of the construction activities would occur concurrently, without separate phases for each activity. Construction would involve the following activities:



**Table 3: Construction Phasing**

<b><u>Month</u></b>	<b><u>Construction Activity</u></b>
1	Site clearance, general mobilization, temporary construction site protection
2	Temporary modifications to Parking Lot B
3	Man-lift erection
4	Demolition of roof and penthouse interior, steel erection, rooftop equipment relocation, penthouse modifications
5 and 6	Helipad platform installation, rooftop equipment relocation, ramp construction
7	Elevator equipment installation, electrical, mechanical and life safety systems installation, rooftop equipment relocation
8	Equipment decommissioning, new equipment testing
9	Inspections, certification, final State and local approvals
10	Demobilization of equipment, site finishing

Construction-related activities would typically occur Monday through Friday from 7:00 a.m. to 5:00 p.m. Staging and storage of construction equipment and materials would occur on the Hospital Campus. Equipment staging could occur in the Emergency Department surface parking lot east of Wing C (Parking Lot B), and on Vermont Street behind the Main Hospital building, between 22<sup>nd</sup> and 23<sup>rd</sup> Streets.

A mobile crane would be brought on-site on about four days during the construction period to lift steel components and elevator machinery. On the days when the crane is transported to and from the site, Vermont Street and portions of 22<sup>nd</sup> Street and San Bruno adjacent to SFGH would be closed about four hours to transport the crane. During each of these periods, these streets would be closed to traffic, and SFGH staff permit parking on Vermont Street would be prohibited. Once the crane was assembled, limited vehicular traffic would be allowed. Commercial vehicles also use Vermont Street to access the hospital's loading dock area. Material and equipment deliveries for project construction would temporarily reduce access to the hospital loading area on Vermont Street during construction.

If it is determined that temporary traffic lane closures would be needed during the 10-month construction period, the closures would be coordinated with the City to minimize impacts on local traffic. In general, lane and sidewalk closures are subject to review and approval by the Department of Public Works and the Interdepartmental Staff Committee on Traffic and Transportation (ISCOTT).

Construction staging and materials and equipment delivery would require temporary removal of up to a maximum of 43 of the 157 parking spaces on the Emergency Department surface parking lot (Lot B) throughout the 10-month construction period. It is anticipated that at least four times within the ten-month construction period, a large mobile crane would be brought on site, as

discussed above. Assembly of the mobile crane would require use of part of the Emergency Department parking lot, temporarily displacing approximately 33 parking places and 10 disabled accessible spaces located on this lot, for up to two days for the mobilization of each crane, a maximum of 43 total spaces that would be temporarily displaced. For the remainder of the time, materials and equipment deliveries would require a staging area within this parking lot.

Project construction would not directly affect any transit operations since all construction activities would occur on the Hospital Campus, or on surrounding streets that do not provide transit, BART or UCSF shuttle service.

During construction, there would be a flow of construction-related trucks into and out of the Hospital Campus. Daily arrivals and departures of small vehicles would occur throughout the construction period as contractors, inspectors, and consultants come to and leave the site. Delivery of construction materials and equipment would be intermittent during construction. The larger shipments of materials would occur approximately four times per month from month 2 through month 7 of the construction period. The impact of construction truck traffic would be a temporary lessening of the street capacities due to the slower movement and larger turning radii of trucks. This would affect both traffic and bus operations, mostly on Potrero Avenue.

The majority of the construction-related deliveries are anticipated to be from U.S. 101 via Bayshore Boulevard or Cesar Chavez Street from the northbound direction, and U.S. 101 via the Army Street exit to Potrero Avenue from the southbound direction. As discussed above, existing traffic conditions on U.S. 101 in the vicinity of SFGH are at LOS E and F during the a.m. and p.m. peak periods. Delivery trucks may seek alternate surface street routes to avoid congestion and delays on U.S. 101 during peak periods. During the 10-month construction period, freeway capacity would be slightly reduced due to project-related construction traffic. This impact would be temporary and intermittent.

The total construction workforce would be approximately 50 tradespersons, contractor's foremen, superintendents, and project managers during the planned 10-month construction period. The average size of the construction crew would be 12 persons, and the peak number would be about 20 during steel erection and large machinery lifting that would occur over an approximately four-month period. Trip distribution and mode split data are not available for construction workers. A conservative estimate assumes that none of the construction workers use transit and all drive to the SFGH Campus. Assuming a peak of 20 construction workers, and average vehicle occupancy of 1.15 persons, approximately 17 construction worker vehicle trips would be generated. These trips would typically occur in the early morning and mid-afternoon at the beginning of the a.m. and p.m. peak periods. This number of trips would not be considered significant and would be temporary and intermittent over a four-month period.

A maximum of 43 parking spaces would be displaced during construction, including 10 disabled accessible spaces, for construction staging and equipment storage. In addition, construction workers could require up to 17 parking spaces at a time. Thus, during the peak construction period, there could be demand for up to 60 parking spaces that could not be met on the SFGH campus, on-street, or within the public parking structure.

SFGH would develop a temporary parking plan during construction to compensate for displaced parking. Alternative locations for disabled accessible parking would be located within the Hospital Campus. SFGH would also consider using valet parking in some on-campus parking areas, or making arrangements for daytime staff parking off site in the garage for unused monthly stalls or stalls used by residents in the hospital vicinity. Temporary loss of parking during construction, although inconvenient, is not a significant physical environmental impact, as discussed on p. 31.

The construction-related impacts of the project would not be considered significant environmental impacts because of the relatively small disruption they would cause to normal traffic, transit, and parking operations and their short-term duration. Thus, construction-related impacts will not be discussed further in the EIR.

Based on the discussion above, the proposed medical helipad project would not cause an increase in traffic, interfere with existing transportation systems, or cause a substantial increase in transit or parking demand, and therefore would not result in significant environmental effects on transportation. Therefore, issues related to ground traffic and circulation require no further analysis or discussion in the EIR. Air traffic will be discussed in the EIR in relation to noise and aircraft safety.

#### Related Projects

As additional funding becomes available for the Livable Streets project, there will be additional street improvements along Potrero Avenue. Anticipated improvements include replacement of surface medians with raised medians and additional signal improvements. Future construction of the Livable Streets improvements would be subject to review, coordination and approval by the Department of Public Works and ISCOTT. Because the SFGH medical helipad project is not expected to generate substantial additional vehicle or transit trips or substantial additional parking demand, it would not contribute to, or be affected by, transportation impacts that might result from further improvements along Potrero Avenue.



5.	<b><u>Noise</u></b> - Could the project:	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a.	Increase substantially the ambient noise levels for adjoining areas?	<u>TO BE DETERMINED</u>		
b.	Violate Title 24 Noise Insulation Standards, if applicable?	<u>TO BE DETERMINED</u>		
c.	Be substantially impacted by existing noise levels?	<u>TO BE DETERMINED</u>		

A detailed study of noise generated by the proposed operation of a medical helipad at SFGH is being prepared. This study, which will address existing area noise including aircraft noise and the impact of noise and vibration on the surrounding neighborhoods, as well as on the SFGH campus, will serve as the basis for the noise analysis, and this topic will be included in the EIR.

6.	<b><u>Air Quality/Climate</u></b> - Could the project:	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a.	Violate any ambient air quality standard or contribute substantially to an existing or projected air quality violation?	—	<u>X</u>	<u>X</u>
b.	Expose sensitive receptors to substantial pollutant concentrations?	—	<u>X</u>	<u>X</u>
c.	Permeate its vicinity with objectionable odors?	—	<u>X</u>	<u>X</u>
d.	Alter wind, moisture or temperature (including sun shading effects) so as to substantially affect public areas, or change the climate either in the community or region?	—	<u>X</u>	<u>X</u>

#### Air Quality Setting

##### *Ambient Air Quality Standards*

National Ambient Air Quality Standards established by the U.S. Environmental Protection Agency (U.S. EPA) and the California Ambient Air Quality Standards established by the California Air Resources Board (ARB) define the target levels of pollutants for air quality planning. The ambient air quality standards are set to protect the public health and welfare with an adequate margin of safety. They are designed to protect those segments of the public most susceptible to respiratory distress, known as sensitive receptors, such as asthmatics, the very young, the elderly, people weak from illness or disease, or persons engaged in strenuous work or exercise.

The Bay Area Air Quality Management District (BAAQMD) operates a regional monitoring network that measures the ambient concentrations of criteria pollutants including ozone, carbon monoxide (CO), inhalable and fine particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and sulfur dioxide (SO<sub>2</sub>). Ozone is a byproduct of precursor emissions of nitrogen oxides (NO<sub>x</sub>) and reactive organic compounds (ROC). There are two monitoring stations in San Francisco: one in the Civic Center area, and one on Arkansas Street in the Potrero Hill neighborhood.

Data gathered from the Arkansas Street station indicate that ozone concentrations in San Francisco do not normally exceed the State 1-hour ozone standard or the Federal standards. Because State and Federal ozone standards are occasionally exceeded in the eastern counties of the Bay Area and in the southern Santa Clara Valley, the region is designated as a nonattainment area for ozone.

Concentrations of PM<sub>10</sub> since 1998 have exceeded the State 24-hour standard in no more than 10 percent of the samples per year. The State-level annual average standards are exceeded at the Arkansas Street station, as they are at nearly every other location in the State, and the Bay Area is designated as a State-level nonattainment area for PM<sub>10</sub> and PM<sub>2.5</sub>. The Bay Area attains the Federal standards for PM<sub>10</sub> and PM<sub>2.5</sub>. CO standards have not been exceeded anywhere in the Bay Area since 1991.

#### *Air Quality Planning and Attainment*

The BAAQMD and the ARB are jointly responsible for oversight of air quality management in the Bay Area. ARB responsibilities include establishing emissions standards and regulations for certain mobile sources, such as autos and light-duty trucks, and overseeing the efforts of local air pollution control districts. The BAAQMD directly regulates stationary emissions sources through its permit authority and indirectly manages emissions from mobile sources through coordination with regional economic and transportation planning agencies. Aircraft emissions are managed by the U.S. EPA.

For State-level air quality planning purposes, the Bay Area is classified by the ARB as a serious nonattainment area for ozone. The "serious" classification triggers various planning requirements and transportation performance standards. To improve ozone conditions, the BAAQMD maintains the Clean Air Plan (CAP), which outlines control measures for stationary sources and mobile sources, as well as transportation control measures for land use and transportation planning. Because aircraft emissions are managed by the U.S. EPA, the CAP does not include measures to reduce emissions that contribute to ozone from these sources. The ARB does not require local attainment plans to address violations of the State-level inhalable particulate (PM<sub>10</sub>) standards.

Traffic-related emissions occur throughout San Francisco and adjacent to the project site. Most notable are the heavy volumes of traffic along U.S. Highway 101. Emissions from on-road mobile sources dominate the localized air quality in the vicinity of the project site. Other substantial sources of air pollution are located within the southeast portion of the City, including the Potrero and Hunters Point Power Plants and the Southeast Water Pollution Control Facility. Aircraft cause approximately four percent of all NO<sub>x</sub> emissions and one percent of all PM<sub>10</sub> emissions in the entire Bay Area. The vast majority of aircraft emissions are from commercial and military operations.<sup>26</sup>

Existing emissions from SFGH are minor. Hospital sources include central heating and cooling facilities, standby back-up power generator engines, and fume hoods and vents for hospital activities.

### Effects on Ambient Air Quality

#### *Emissions from Helicopter Operations*

Operation of the medical helipad project would lead to increased helicopter use in the SFGH catchment area<sup>27</sup> and would cause aircraft emissions. The project sponsor anticipates that the hospital would experience a maximum of roughly 700 landing and takeoff cycles per year, with an expected maximum of three per day on a peak air-transport day. With one landing and takeoff at the pick-up site and one landing and takeoff at the hospital, the project could add six landing and takeoff cycles per day to the SFGH catchment area. Medical helicopters would also spend additional time flying between pick-up sites, base sites, and the hospital (a maximum flight duration of about three hours per day).

Emissions from the various types (i.e., make, model, and engine type) of helicopters that could occur have been quantified, based on the number of trips and aviation emission factors published by the U.S. EPA and other agencies.<sup>28,29</sup> The helicopters accessing SFGH would typically be twin-engine models, operated on jet fuel. As such, their emissions are not subject to a high level of regulatory control because most efforts to manage emissions from aircraft focus on the more

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<sup>26</sup> Bay Area Air Quality Management District, *Revised San Francisco Bay Area Ozone Attainment Plan for the 1-Hour National Ozone Standard*, adopted October 24, 2001.

<sup>27</sup> A catchment area is the area helicopters would use to pick up patients for transfer to SFGH. The proposed SFGH catchment area includes the lands to the north just south of Vallejo, to the east just east of the Oakland area, and as far south as Burlingame.

<sup>28</sup> U.S. Environmental Protection Agency, AP-42, *Compilation of Air Pollutant Emission Factors*, Volume II-1, Aircraft, February 1980.

<sup>29</sup> U.S. Department of the Interior, Minerals Management Service (MMS), *Data Quality Control and Emissions Inventories of OCS Oil and Gas Production Activities in the Breton Area of the Gulf of Mexico*, MMS 2004-071, October 2004.



substantial emissions from commercial aircraft. In any case, as Table 4 shows, the maximum daily helicopter emissions caused by the proposed project, individually and cumulatively, would not cause an exceedence of the thresholds of significance established by the BAAQMD.

**Table 4: Summary of Daily Emissions**

<b>Daily Emissions</b>	<b>NO<sub>x</sub></b> <b>(lb/day)</b>	<b>ROC</b> <b>(lb/day)</b>	<b>CO</b> <b>(lb/day)</b>	<b>SO<sub>2</sub></b> <b>(lb/day)</b>	<b>PM<sub>10</sub></b> <b>(lb/day)</b>
Project Helicopter Activity	43.3	42.8	96.2	5.3	4.8
Significance Threshold	80	80	550	None	80
Significant Impact?	No	No	No	No	No

This is a conservative analysis because with existing conditions helicopters may already be transporting some of the patients to other facilities in the region, such as the Stanford University Medical Center or John Muir Medical Center, that are assumed to be transported to SFGH in the future. Thus, some flights may be double-counted. Additionally, the maximum annual and daily number of flights is conservatively high, as discussed on pp. 8-9.

#### *Emissions from Motor Vehicle Traffic*

On the ground, motor vehicle traffic would not change noticeably with the proposed project. Increased on-road traffic to the Hospital Campus that could be attributed to the proposed project would be approximately one additional ambulance trip per day, or less. Emissions from this level of traffic would be insignificant. The BAAQMD generally does not recommend a detailed analysis for projects generating less than 2,000 vehicle trips per day, because the vehicle emissions have been demonstrated to be less than significant.

The combined emissions from all project-related operations (i.e., the combination of emissions from helicopter operations shown in the table above and emissions from one additional ambulance trip per day) would not exceed the established thresholds of significance, and therefore would not be likely to violate any ambient air quality standard or contribute substantially to an existing or projected air quality violation. Emissions from the project would not cause a significant air quality impact. Therefore, the EIR will not address air quality impacts of project operation further.

#### *Cumulative Air Quality Effects*

Future development in the area of the proposed project could contribute, along with project emissions, to a cumulative annual increase in regional air pollutant emissions. Pollutants generated by local cumulative development and population growth, coupled with project emissions from helicopter activity (Table 4), could add to the effects of the proposed medical

helipad project. Emissions due to population growth are normally considered by the BAAQMD in its air quality planning process, which takes into account the wide range of control measures that are currently in place for stationary and mobile sources. A quantitative analysis of future cumulative growth in emissions from existing news/traffic-watch helicopter flights would be speculative and would likely be proportional to population growth. Because control measures for cumulative growth have been established previously by the BAAQMD, the less-than-significant impacts of the proposed medical helipad project would not be cumulatively considerable, in the region.

#### Exposure to Toxic Air Contaminant Emissions/Objectionable Odors

The proposed project would include construction and operation of the medical helipad. Construction includes the platform, interior modifications to the east elevator, and an access ramp. Diesel fuel would be used by heavy-duty off-road construction equipment, resulting in toxic air contaminant emissions during construction. During operation, combustion of jet fuel, diesel fuel, and/or fuel oil by the helicopters would cause emissions of trace quantities of toxic air contaminants and odors. These activities would not generate toxic air contaminants in substantial amounts or cause frequent occurrences of objectionable odors. Jet fuel exhaust odors may be noticeable in the immediate vicinity of the helipad; they would be sufficiently diluted with fresh air before reaching off-campus locations. There would not be a need to increase operation of natural gas boilers, standby generators, or any other source of air pollution at the Hospital Campus, due to the project. Helicopters using the medical helipad would not be refueled at the hospital because the project does not involve fueling operations. Therefore, no substantial exposure to toxic air contaminant emissions or objectionable odors would occur with the proposed project, and no significant impact would occur from toxic air contaminants or odors. Therefore, the EIR will not address this issue further.

#### Construction Emissions

During the 10-month construction period for the medical helipad facilities, emissions from construction equipment and activities could affect air quality. Construction and fabrication of the helipad and modifications to the hospital to accommodate access would involve the use of heavy-duty construction equipment that would emit pollutants as a result of diesel fuel combustion, and cause dust from a relatively small amount of excavation required for construction of the below-ground holding tank to be located at the base of Wing C. The equipment could include a man-lift, mobile or tower cranes, and portable generators for providing power. Trucks delivering construction materials and equipment and removing debris, as well as vehicles carrying commuting construction workers, would also emit small amounts of pollutants. A small excavator or other earthmover would also be needed to install the underground fuel-water separator tank near the base of hospital Wing C.

The criteria pollutants or precursors to criteria pollutants that would be emitted during construction are NO<sub>x</sub>, ROC, PM<sub>10</sub> and PM<sub>2.5</sub>, and CO. Except for the excavation for the underground holding tank associated with the fuel and water separator, all staging and work areas would be on developed or paved surfaces.

Construction emissions would be temporary over a 10-month construction period, but they could still cause adverse effects on local air quality. The BAAQMD, in its *CEQA Guidelines*,<sup>30</sup> has developed an analytical approach that obviates the need to estimate these emissions quantitatively. Instead, the BAAQMD has included the exhaust emissions from construction equipment in the emission inventory that serves as the basis for regional air quality plans and has identified a set of feasible measures for dust control. The project sponsor would implement the relevant measures to reduce the effects of construction activities to a less-than-significant level (see Mitigation Measure 1: Construction Air Quality, pp. 52-53). Therefore, the project would not cause significant construction-related air quality effects, and the EIR will not address this issue further.

### Wind

To provide a comfortable wind environment for people in San Francisco, the City established specific pedestrian comfort and hazard criteria to be used in the evaluation of proposed buildings in certain areas of the City in and near downtown. These standards do not apply in the SFGH area of the City where street-level winds are less affected by the surrounding cityscape. However, they provide a frame of reference for wind effects in San Francisco.

The proposed approximately 3,000-square-foot medical helipad would be added to the Main Hospital building, approximately 105 feet above the grade elevation on top of the existing building. The project would be 150 feet from the nearest property line. The addition of the platform extending about 1½ feet above the Main Hospital parapet would not be likely to affect winds at ground level. The project rooftop structures would not cause a significant wind impact, and wind effects from additions to the Main Hospital building will not be discussed further in the EIR.

Regarding wind impacts from the helicopters, although rotor wash could potentially be felt by pedestrians on the campus, pedestrians would not walk at unsafe proximity to, or within 100 feet of the landings/take-offs.<sup>31</sup> The medical helipad and hospital building would deflect most of the rotor wash wind. Rotor wash from the helicopters would not adversely affect off-site locations

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<sup>30</sup> Bay Area Air Quality Management District, *CEQA Guidelines, Assessing the Air Quality Impacts of Projects and Plans*, December 1999.

<sup>31</sup> Technical determination made by Brewster Birdsall, Senior Scientist - Turnstone Consulting, as summarized in a Turnstone Consulting Memo from Julie Tilley, October 25, 2005. A copy of this document is available for review, by appointment, at the Planning Department, 1660 Mission Street, San Francisco, as part of the project file.



because of the distance both in height above grade and in linear distance for pedestrians on campus, and in linear distance for pedestrians on adjacent City sidewalks.

### Shadow

The project proposes to increase the height of the hospital's existing 28-foot-long, east elevator penthouse by about six feet to allow the elevator to receive patients on the hospital roof. Planning Code Section 295 prohibits issuance of City building permits authorizing the construction of any structure over 40 feet in height that would cause significant new shadow on open space under the jurisdiction of, or designated to be acquired by, the Recreation and Park Commission unless the Planning Commission, in consultation with the General Manager of the Recreation and Park Department, determines that the shade would not have a significant impact of the use of such property. Property owned by the Recreation and Park Department in the vicinity of San Francisco General Hospital consists of the Potrero Del Sol Park and the James Rolph Junior Playground located three short block dimensions to the south at Potrero Avenue and Cesar Chavez Street, McKinley Square Park located about one long block dimension to the north, the Jose Coronado Clubhouse located about eight short block dimensions to the northwest at 21<sup>st</sup> and Folsom Streets, and the Parque Niños Unidos Clubhouse located about seven short block dimensions to the west at 23<sup>rd</sup> and Treat Streets. The extent of shadow cast by the elevator mechanical penthouse will be studied. The results of the study will be discussed in the EIR.

7.	<u>Utilities/Public Services</u> - Could the project:	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a.	Breach published national, state or local standards relating to solid waste or litter control?	<u>—</u>	<u>X</u>	<u>X</u>
b.	Extend a sewer trunk line with capacity to serve new development?	<u>—</u>	<u>X</u>	<u>X</u>
c.	Substantially increase demand for recreation or other public facilities?	<u>—</u>	<u>X</u>	<u>X</u>
d.	Require major expansion of power, water, or communications facilities?	<u>—</u>	<u>X</u>	<u>X</u>

There would not be substantial new stormwater runoff created by the proposed project. To treat stormwater runoff from the medical helipad, the project would include below-ground installation of an approximately 900- to 1,000-gallon spill containment system adjacent to the south wall of Wing C of the Main Hospital building to prevent discharge of hazardous materials to the City's sewer system. Contaminated water would pass through an oil/water separator. The contaminants would remain in the tank and would be pumped out later for proper disposal by the Medical Center's hazardous material collection service for disposal at a facility authorized to accept this

type of hazardous material. Separated decontaminated water would be discharged to the City's combined sewer and storm drain system, where it would ultimately be treated at the City's Southeast Water Pollution Control Plant and subsequently discharged to the San Francisco Bay. Treatment would be provided pursuant to the effluent discharge standards set by the plant's National Pollutant Discharge Elimination System (NPDES) permit. If aviation fuel spills from the helicopter were to occur, sensors in the system would route fuel directly into the containment tank and bypass the oil/water separator. Materials used to decontaminate the helipad and flush the drainage line to the tank would also go directly into the containment tank.

The project site is a long-established medical institution, served by sewer lines; solid waste collection services; water, fire and police services; and recreational facilities. Since the proposed medical helipad would not require extension of a sewer trunk line, generate substantial amounts of additional solid waste, or increase demand for fire or police services or recreational facilities, the project would not have a significant impact and no further analysis of this topic is necessary in the EIR.

The project site is also served by power and communication facilities. The proposed medical helipad would require specific aviation lighting. Connections for this lighting system would tap into existing power grids that are currently used by SFGH. The proposed project would increase demand for and use of public services and utilities on the site, but not in excess of amounts expected and provided for in this area. San Francisco consumers have recently experienced rising energy costs and uncertainties regarding the supply of electricity. The root causes of these conditions are under investigation and are the subject of much debate. Part of the problem may be that the State does not generate sufficient energy to meet its demand and must import energy from outside sources. Another part of the problem may be the lack of cost controls as a result of deregulation. The California Energy Commission is currently considering applications for the development of new power-generating facilities in San Francisco, the Bay Area, and elsewhere in the State. These facilities could supply additional energy to the power supply "grid" within the next few years. These efforts, together with conservation, will be part of the statewide effort to achieve energy sufficiency. The project-generated demand for electricity would be negligible in the context of overall demand within San Francisco and the State, and would not in and of itself require a major expansion of power facilities. Therefore, the energy demand associated with the proposed project would not result in a significant physical environmental effect and will not be discussed further in the EIR.

8.	<b><u>Biology</u></b> - Could the project:	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a.	Substantially affect a rare or endangered species of animal or plant, or the habitat of the species?	—	<u>X</u>	<u>X</u>
b.	Substantially diminish habitat for fish, wildlife or plants, or interfere substantially with the movement of any resident or migratory fish or wildlife species?	—	<u>X</u>	<u>X</u>
c.	Require removal of substantial numbers of mature, scenic trees?	—	<u>X</u>	<u>X</u>

SFGH is located in an urbanized area. The Hospital Campus is surrounded on all sides by urban development. The campus itself is also fully developed. Open areas are all landscaped, primarily with non-native plant species. Therefore, plant and animal habitats on and around the site have been, and continue to be, disturbed by maintenance activities and by the other day-to-day operations of the Hospital Campus. Any native plant species present are within the landscaped area. The wildlife species present primarily represent species that are tolerant of urban areas. There are no known resident rare or endangered animal or plant species at the SFGH campus.

Construction of the proposed project would involve use of the emergency/visitors parking lot on the south side of the Main Hospital building as a staging area. The proposed location of the medical helipad is on top of the Main Hospital building. Both of these locations are developed and completely covered by impervious surfaces. The project would not affect, or substantially diminish, plant or animal habitats.

Collisions between birds and helicopters occasionally do occur, primarily during the cruising phase of a flight rather than during landings or takeoffs. Generally, helicopters fly low enough and have adequate maneuverability to avoid bird strikes.<sup>32</sup> The project, including helicopter operations, would not interfere with any resident or migratory species. The project would not require the removal of any trees. Therefore, there would be no significant biological impact, and biology will not be discussed in the EIR.

9.	<b><u>Geology/Topography</u></b> - Could the project:	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a.	Expose people or structures to major geologic hazards (slides, subsidence, erosion and liquefaction)?	—	<u>X</u>	<u>X</u>

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<sup>32</sup> Christine Wachsmuth, Project Manager for the SFGH Medical Helipad Project and Administrator for Trauma Services, SFGH, memorandum to Barbara Sahn, Turnstone Consulting, transcribing conversation with R. Austin Wiswell, Chief, Division of Aeronautics, California Department of Transportation (Caltrans) and Dan Gargas, Caltrans Associate Aviation Consultant, April 28, 2005.



Could the project:	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
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b.	Change substantially the topography or any unique geologic or physical features of the site?	—	<u>X</u>	<u>X</u>
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Geological Hazards

The Community Safety Element of the *San Francisco General Plan*<sup>33</sup> contains maps that show areas subject to geologic hazards. The project site is located in an area subject to “non-structural to moderate” damage (Modified Mercalli Intensity VII to VIII) from seismic groundshaking originated by an earthquake of Moment Magnitude 7.1 along the San Andreas fault, approximately 6 miles southwest of San Francisco, and the Northern Hayward fault, approximately 12 miles northeast of San Francisco (Maps 2 and 3 in the Community Safety Element), and within a Seismic Hazards Study Zone designated by the California Division of Mines and Geology. The project site is not in an area of liquefaction potential or in an area subject to landslide, seiche or tsunami run-up, or reservoir inundation (Maps 4, 5, 6, and 7 in the Community Safety Element). The project site is not in an Alquist-Priolo Earthquake Fault Zone.<sup>34</sup>

The project would be entirely contained on the roof of the Main Hospital building and therefore would be subject to the same geologic hazards as the building itself. The building was designed in 1969 and constructed by 1972. Typical geotechnical engineering measures, such as compaction, bank stabilization, and construction of retaining walls, are assumed to have been performed at that time. As part of the Feasibility Study<sup>35</sup> for the proposed project, Degenkolb Engineers performed structural evaluations of the existing building to determine whether it could support the new medical helipad. Title 24, Part 2, Division VI-R of the California Building Code requires that the building be upgraded if any change to the live or dead loads of the existing hospital building would cause an increase in story seismic shear force of more than five percent. Degenkolb concluded that the additional weight of the proposed medical helipad and associated features, including the additional weight of the largest helicopter that would use the pad, would not increase the seismic forces in the top story by more than five percent. Therefore, the addition of the helipad and associated features would not require the building as a whole to be strengthened for seismic forces. The helipad would be braced against seismic forces with diagonal steel braces between the landing pad and the existing concrete roof.

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<sup>33</sup> San Francisco Planning Department, *Community Safety, An Element of the General Plan of the City and County of San Francisco*, adopted April 1997.

<sup>34</sup> California Department of Conservation, Division of Mines and Geology, Special Publication 42, *Fault-Rupture Hazard Zones in California*, revised 1997.

<sup>35</sup> Gerson/Overstreet Architects, *San Francisco General Hospital Medical Center Air Medical Access Needs and Feasibility Study, September 2002-March 2003*, March 4, 2003.

The project would not newly subject a substantial number of people or structures to major geologic hazards. In the event of a major seismic event in San Francisco or the Bay Area, the medical helipad operation would be expected to be an important emergency resource for the injured. Therefore, there would be no significant geologic impact and geology will not be discussed further in the EIR.

### Topography/Unique Geological Features

Implementation of the proposed project would not alter the topography of the site or otherwise affect any geologic or physical features of the site. Therefore, there would be no significant topographic impact, and this topic will not be discussed further in the EIR.

10.	<u>Water</u> - Could the project:	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a.	Substantially degrade water quality, or contaminate a public water supply?	___	<u>X</u>	<u>X</u>
b.	Substantially degrade or deplete groundwater resources, or interfere substantially with groundwater recharge?	___	<u>X</u>	<u>X</u>
c.	Cause substantial flooding, erosion or siltation?	___	<u>X</u>	<u>X</u>

The project is a rooftop medical helipad and would not substantially degrade water quality or contaminate a public water supply. Existing stormwater runoff from the entire the Medical Campus, including the Main Hospital building rooftop, is currently directed to the City's storm sewer system. The proposed helipad site would not generate additional stormwater runoff.

The project includes installation of an underground spill containment system. This system would separate stormwater and any aviation fuel spills and other contaminants that might occur on the helipad platform surface. All runoff and contaminants would be piped into a 900- to 1,000-gallon underground tank that would be constructed adjacent to Wing C of the Main Hospital building. All runoff would be contained and contaminants separated and appropriately disposed of; contaminant-free stormwater collected from the helipad site would continue on into the City's combined sewer system. Runoff would be treated at the City's Southeast Water Pollution Control Plant and subsequently discharged to the San Francisco Bay. Treatment would be provided pursuant to the effluent discharge limitations set by the plant's National Pollutant Discharge Elimination System (NPDES) permit. This system would eliminate the possibility of degradation of water quality and groundwater resources.

There is no City public water supply located near the SFGH Hospital Campus site. Groundwater may be present beneath the Campus; San Francisco does not currently use groundwater as part of

its water supply. The project would not use or deplete groundwater resources, and would neither increase nor decrease the amount of surface run-off of storm water. Potential contamination of groundwater would be limited to a less-than-significant level by the use of a spill-containment system designed to current standards.

Based on the above, there would not be a significant impact on water quality from the project, and no further analysis of hydrology and water quality issues is necessary in the EIR.

11.	<b><u>Energy/Natural Resources</u></b> - Could the project:	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a.	Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?	___	<u>X</u>	<u>X</u>
b.	Have a substantial effect on the potential use, extraction, or depletion of a natural resource?	___	<u>X</u>	<u>X</u>

#### Energy Use

The proposed project is a rooftop medical helipad. Development of this use would not result in use of large amounts of fuel, water, and energy, during either the construction or operational phases. The project would meet, or exceed, current State and local standards regarding energy consumption, including Title 24 of the California Code of Regulations enforced by the California Office of Statewide Health Planning and Development (OSHPD). Use of helicopters to provide emergency medical access would result in additional fuel consumption, but not in large amounts and not in a wasteful manner. For this reason, the project would not cause a wasteful use of energy, and would have a less-than-significant impact on energy and natural resources. No substantial energy-related effects are expected for the proposed project, and energy will not be discussed further in the EIR.

#### Natural Resource Use

The project would use natural gas and coal fuel to generate electricity for the project's lighting and would use natural resources to fabricate the helipad platform and pedestrian access ramp. The project would not use substantial quantities of nonrenewable natural resources. Therefore, the project would not have a significant effect on the use, extraction, or depletion of a natural resource, and no further analysis is required in the EIR.



12.	<u>Hazards</u> - Could the project:	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a.	Create a potential public health hazard or involve the use, production or disposal of materials which pose a hazard to people or animal or plant populations in the area affected?	<u>TO BE DETERMINED</u>		
b.	Interfere with emergency response plans or emergency evacuation plans?	—	<u>X</u>	<u>X</u>
c.	Create a potentially substantial fire hazard?	—	<u>X</u>	<u>X</u>

#### Public Health Hazards and Hazardous Materials

The proposed project would involve the use of small amounts of hazardous materials. Hazardous materials would not be stored at the helipad project site. Small amounts of hazardous materials, such as oxygen and hand cleaning solution, would be stored at the project site; the volume of these materials would be below the amounts regulated by State and Federal agencies. Storage would conform to current OSHPD building codes and local requirements. Construction activities typically involve the use of small amounts of hazardous materials in lubricants, fuel, adhesives, solvents, and other building materials. Helicopters using aircraft fuel would land at the medical helipad, though they would not be maintained, repaired, or fueled there. As described earlier, a 900- to 1,000-gallon spill containment system would be installed underground at the base of Main Hospital building Wing C to receive stormwater and any aviation fuel or contaminant spills that might occur. Runoff from the helipad would be conveyed into this tank. This tank would be constructed in accordance with current laws and regulations requiring that hazardous materials be stored in such a manner as to minimize exposure to people or the environment. Hazardous liquids collected in the fuel-water storage tank would be removed by a hazardous materials disposal service. The hospital already stores and uses hazardous materials (hazardous chemicals, radioactive materials, and pharmaceuticals) and generates medical and hazardous wastes. The hospital is required to maintain policies, procedures, and employee training in the use, storage, and disposal of hazardous materials, including biohazardous materials. Emergency fuel drops would not occur as none of the EMS helicopters used in Northern California are capable of dumping fuel in an emergency.<sup>36</sup> In view of the above, the proposed project would not pose any new or substantial public health or safety hazards related to hazardous materials.

Comprehensive testing of the portion of the hospital building to be modified, i.e., the elevator penthouse, constructed in 1972, has not been conducted. Asbestos-containing materials may be found. Section 19827.5 of the California Health and Safety Code, adopted January 1, 1991,

<sup>36</sup> Michael McClintok, consultant to SFGH, email to Turnstone Consulting summarizing his discussions with Brad Mills, Chief Pilot, CalStar; Doug Evans, Chief Pilot, Stanford Life Flight; and Vicky Spediacci, REACH, April 6, 2005.

requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable Federal regulations regarding hazardous air pollutants, including asbestos. The Bay Area Air Quality Management District (BAAQMD) is vested by the California legislature with authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement, and is to be notified 10 days in advance of any proposed demolition or abatement work.

Notification includes the names and addresses of operations and persons responsible; description and location of the structure to be demolished/altered including size, age and prior use, and the approximate amount of friable asbestos; scheduled starting and completion dates of demolition or abatement; nature of planned work and methods to be employed; procedures to be employed to meet BAAQMD requirements; and the name and location of the waste disposal site to be used. The District randomly inspects asbestos removal operations. In addition, the District will inspect any removal operation for which a complaint has been received.

The local office of the State Occupational Safety and Health Administration (OSHA) must be notified of asbestos abatement to be carried out. Asbestos abatement contractors must follow State regulations contained in 8CCR1529 and 8CCR341.6 through 341.14 where there is asbestos-related work involving 100 square feet or more of asbestos-containing materials. Asbestos removal contractors must be certified as such by the Contractors Licensing Board of the State of California. The owner of the property where abatement is to occur must have a Hazardous Waste Generator Number assigned by and registered with the Office of the California Department of Toxic Substances Control in Sacramento. The contractor and hauler of the material are required to file a Hazardous Waste Manifest which details the hauling of the material from the site and the disposal of it. Pursuant to California law, the Department of Building Inspection (DBI) would not issue the required permit until the applicant has complied with the notice requirements described above.

These regulations and procedures, already established as a part of the permit review process, would insure that any potential impacts due to asbestos would be reduced to a level of insignificance.

As the interior and exterior of the elevator penthouse are unfinished concrete, lead paint would not be expected to be found in the elevator penthouse, constructed in 1972 and proposed for modification as part of the project. SFGH routinely discloses the possible presence of lead paint in the project specifications during the public bid of the construction contract, as well as including lead paint abatement specifications in the scope of work.<sup>37</sup> The implementation of this procedure by SFGH would ensure that potential impacts of demolition due to lead-based paint

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<sup>37</sup> Carlos Villalva, SFGH Staff Facilities Coordinator, email to Turnstone Consulting, April 6, 2005.

would be reduced to a level of insignificance. Therefore, this topic will not be discussed in the EIR.

### Emergency Response Plans

The proposed project would not interfere with any existing emergency response plans or emergency evacuation plans. In the event of a local or regional multi-casualty incident, catastrophic event, or other large-scale emergency, the medical helipad would provide direct access to and from the SFGH Trauma Center. The SFGH and the Department of Public Health would modify their existing emergency response plans to incorporate air medical access to the Medical Center. Therefore, this project would not have a significant adverse effect on emergency response plans, and could have a beneficial effect. In view of the above, this issue will not be further discussed in the EIR.

### Fire Hazards

Fire and life safety of hospital buildings in California is governed by OSHPD, which will review and approve the plans for the medical helipad, with input from the local San Francisco Fire Department. In addition, the plans for the helipad and proposed rooftop fire suppression features will be reviewed by the Aeronautics Division of the California Department of Transportation, as well as by the FAA. In this way, potential fire hazards (including those associated with hydrant water pressure and emergency access) would be addressed during the permit review process. Therefore, the presence of a helipad would not create a substantial fire hazard, and this issue will not be further discussed in the EIR. Hazards related to helicopter operations are discussed below in “Aircraft Safety”.

### Aircraft Safety

Helicopter emergency medical service currently operates in seven cities in the Bay Area. Numerous provisions are in place to ensure safe operations: helicopters would be operated only by pilots licensed by the FAA; helicopter operations and flight paths would be subject to permitting by the FAA; and helicopters would be maintained in accordance with FAA requirements. Potential operational effects of use of a medical helipad at SFGH, including the potential for helicopter crashes and response measures in the event of an aviation accident, will be discussed in the EIR.



13.	<b><u>Cultural Resources</u></b> - Could the project:	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
a.	Disrupt or adversely affect a prehistoric or historic archaeological site or a property of historic or cultural significance to a community, ethnic or social group; or a paleontological site except as a part of a scientific study?	—	<u>X</u>	<u>X</u>
b.	Conflict with established recreational, educational, religious or scientific uses of the area?	—	<u>X</u>	<u>X</u>
c.	Conflict with the preservation of buildings subject to the provisions of Article 10 or Article 11 of the City Planning Code?	—	<u>X</u>	<u>X</u>

#### Archaeological Resources

There are no known archaeological or paleontological resources on the project site. The site was extensively disturbed during excavation for construction of the existing Main Hospital building, completed in 1972, and which includes a full basement. No new excavation would be necessary to install the proposed medical helipad. Excavation would be required for installation of the underground spill-containment system at the base of Main Hospital building Wing C. This excavation would be approximately 12 to 15 feet long, 10 to 12 feet wide, and 10 to 12 feet deep, in areas previously excavated for construction of the Main Hospital building. Therefore, there is limited possibility of encountering subsurface archaeological resources. To reduce potential impacts that could occur due to accidental discovery of archaeological resources, the project would incorporate Mitigation Measure No. 2, which calls for distribution and circulation of an "Alert" sheet to prime contractors and subcontractors prior to soil disturbance on site, and establishes procedures to be followed if archaeological resources are found. Implementation of this measure would reduce potential effects related to archaeological resources to a less-than-significant level.

#### Historic Architectural Resources

The Main Hospital building was constructed in about 1972 and is not identified or rated as a historic resource. Use of the roof of this building for a medical helipad, therefore, would not conflict with the provisions of the City Planning Code protecting historic architectural resources. The older hospital buildings, constructed in 1915, have not been determined to be historic resources and are not included on any survey. Should such a determination be made, the proposed helipad on the rooftop of the Main Hospital building would not result in impacts to

these older nearby buildings.<sup>38</sup> Therefore, significant impacts to historic architectural resources would not result, and this topic will not be discussed in the EIR.

Installation and operation of a medical helipad on the roof of Main Hospital would not conflict with established recreational, educational, religious, or scientific uses of the area, and this topic will not be discussed in the EIR.

**OTHER** - Could the project:

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
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Require approval and/or permits from City departments other than the Planning Department or the Department of Building Inspection, or from regional, state, or federal agencies?

<u>X</u>	___	___	<u>X</u>
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A discussion of approvals and permits necessary for the project is presented in Compatibility with Existing Zoning and Plans, on pp. 14-16. These include permit review/approval by the Federal and State agencies described there.

<b>MEASURES</b>	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Discussed</u>
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- |   |          |     |     |          |
|---|----------|-----|-----|----------|
| 1. Could the project have significant effects if mitigation measures are not included in the project? | <u>X</u> | ___ | ___ | <u>X</u> |
| 2. Are all mitigation measures necessary to eliminate significant effects included in the project?    | <u>X</u> | ___ | ___ | <u>X</u> |

### **Mitigation Measures**

The following mitigation measures relate to items covered in this Initial Study which require no further analysis in the EIR. Additional mitigation measures could be identified for those topics in the EIR.

#### **Mitigation Measure 1: Construction Air Quality**

The following measure would reduce potential construction air quality impacts to less-than-significant levels.

The project sponsor would require the contractors to spray the site with water during excavation; spray unpaved construction areas with water at least twice per day; cover piles of loose construction material; and cover trucks hauling debris or other loose material. Ordinance 175-91,

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<sup>38</sup> The EIR will address the potential impact of vibration on the surrounding neighborhood and the SFGH Campus, including any impacts to hospital buildings, as indicated on p. 36 of the Noise section of this Initial Study.

passed by the Board of Supervisors on May 6, 1991, requires that nonpotable water be used for dust control activities. Therefore, the project sponsor would require that the contractors obtain reclaimed water from the Clean Water Program for this purpose. The project sponsors would require the project contractors to maintain and operate construction equipment so as to minimize exhaust emissions of particulates and other pollutants, by such means as a prohibition on idling motors when equipment is not in use or when trucks are waiting in queues and implementation of specific maintenance programs to reduce emissions for equipment that would be in frequent use for much of the construction period (including man-lift, mobile crane, and portable generators).

## **Mitigation Measure 2: Archaeological Resources**

The following mitigation measure is required to avoid any potential adverse effect from the proposed project on accidentally discovered buried or submerged historical resources as defined in *CEQA Guidelines* Section 15064.5(a)(c). The project sponsor shall distribute the Planning Department archeological resource “ALERT” sheet to the project prime contractor; to any project subcontractor (including demolition, excavation, grading, foundation, pile driving, etc. firms); or utilities firm involved in soils disturbing activities within the project site. Prior to any soils disturbing activities being undertaken each contractor is responsible for ensuring that the “ALERT” sheet is circulated to all field personnel including, machine operators, field crew, pile drivers, supervisory personnel, etc. The project sponsor shall provide the Environmental Review Officer (ERO) with a signed affidavit from the responsible parties (prime contractor, subcontractor(s), and utilities firm) to the ERO confirming that all field personnel have received copies of the Alert Sheet.

Should any indication of an archeological resource be encountered during any soils disturbing activity of the project, the project Head Foreman and/or project sponsor shall immediately notify the ERO and shall immediately suspend any soils disturbing activities in the vicinity of the discovery until the ERO has determined what additional measures should be undertaken.

If the ERO determines that an archeological resource may be present within the project site, the project sponsor shall retain the services of a qualified archeological consultant. The archeological consultant shall advise the ERO as to whether the discovery is an archeological resource, retains sufficient integrity, and is of potential scientific/historical/cultural significance. If an archeological resource is present, the archeological consultant shall identify and evaluate the archeological resource. The archeological consultant shall make a recommendation as to what action, if any, is warranted. Based on this information, the ERO may require, if warranted, specific additional measures to be implemented by the project sponsor.

Measures might include: preservation in situ of the archeological resource; an archaeological monitoring program; or an archeological testing program. If an archeological monitoring program or archeological testing program is required, it shall be consistent with the Major



Environmental Analysis (MEA) division guidelines for such programs. The ERO may also require that the project sponsor immediately implement a site security program if the archeological resource is at risk from vandalism, looting, or other damaging actions.

The project archeological consultant shall submit a Final Archeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archeological resource and describing the archeological and historical research methods employed in the archeological monitoring/data recovery program(s) undertaken. Information that may put at risk any archeological resource shall be provided in a separate removable insert within the final report.

Copies of the Draft FARR shall be sent to the ERO for review and approval. Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archaeological Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Major Environmental Analysis division of the Planning Department shall receive three copies of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest or interpretive value, the ERO may require a different final report content, format, and distribution than that presented above.

## **ALTERNATIVES**

CEQA requires that an EIR evaluate a reasonable range of feasible alternatives to the project, or to the location of the project, that would attain most of the basic project objectives, but that could avoid or substantially lessen any of the significant effects of the project, so that the merits of each alternative are compared to those of the proposed project. In addition to the No Project alternative required by CEQA, the EIR will discuss the Decreased Volume of Flights alternative. The findings of the impact analysis, during preparation of the DEIR, may identify other alternative approaches to avoid or substantially lessen significant impacts of the proposed project.

**MANDATORY FINDINGS OF SIGNIFICANCE**Yes   No   Discussed

- |    |   |          |          |          |
|----|---|----------|----------|----------|
| 1. | Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or pre-history? | —        | <u>X</u> | <u>X</u> |
| 2. | Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?   | —        | <u>X</u> | <u>X</u> |
| 3. | Does the project have possible environmental effects which are individually limited, but cumulatively considerable? (Analyze in the light of past projects, other current projects, and probable future projects.)  | —        | <u>X</u> | <u>X</u> |
| 4. | Would the project cause substantial adverse effects on human beings, either directly or indirectly?   | <u>X</u> | —        | <u>X</u> |

Cumulative Impacts

The potential cumulative impact of the project in relation to the Livable Streets project along Potrero Avenue is discussed on p. 35 of the Transportation/Circulation section under Related Projects. Because the SFGH medical helipad project is not expected to generate substantial additional vehicle or transit trips or substantial additional parking demand, it would not cumulatively contribute to or be affected by transportation impacts that might result from further improvements along Potrero Avenue.

Regarding the SFGH Master Plan, State law (SB 1953) requires that all State of California hospital structures meet mandatory seismic code standards by 2013. The SFGH main hospital-building does not currently meet these seismic standards and will need to be seismically upgraded or replaced with a new hospital structure. The San Francisco Department of Public Health is in the beginning stages of discussing a Master Plan for SFGH which would include an approach to comply with SB 1953. There are no draft reports available for review; in 2005, a Blue Ribbon committee recommended to Mayor Newsom that a new hospital building be constructed on the existing SFGH Main Campus at 1001 Potrero Avenue. Until the Department of Public Health is able to provide sufficient details about where a new hospital building could be constructed, it would be speculative to assess potential cumulative impacts such development could have in

combination with the proposed medical helipad project. Any major hospital upgrade or replacement hospital building(s) would be subject to environmental review, and such analysis would need to address the existing setting and future projects anticipated in the neighboring development area.

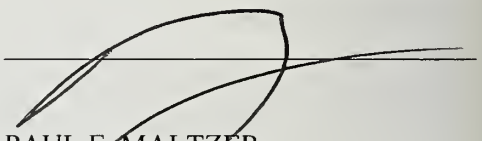
Potential Significant Effects

The project could have a potential significant impact on noise, shadow, and hazard impacts. These topics will be analyzed in the EIR.

**ON THE BASIS OF THIS INITIAL STUDY:**

- ☐ I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☐ I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because the mitigation measures in the discussion have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.
- ☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

DATE: October 28, 2005

  
PAUL E. MALTZER  
Environmental Review Officer  
for Dean L. Macris  
Director of Planning





